



**WAMV70
CONTROL VALVE**



WAMV 70

monoblock directional control valve

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General Specifications

Genel Özellikler

Product Features

- WAMV70 valve offers excellent operating characteristics for nominal flow rate 80 lpm and operating pressure up to 315 bar.
- Valve is equipped with an adjustable main relief valve and a load hold check valve
- Available in parallel (in standard) and series circuit
- Wide range of spool options
- Interchangeable Ø16 mm Spools
- Carry-over and closed center option
- Valve can be operated by manual, with remote cable, pneumatic, electro-pneumatic, hydraulic, electro-hydraulic, solenoid and inlet proportional

Özellikler

- WAMV70 serisi 80 lt/dk ve 350bar'a kadar maksimum performansı gösteren birçok uygulamada güvenle kullanılan kontrol kumandasıdır.
- Ayarlanabilir Ana Emniyet Valfi
- Paralel Devre ve Seri Devre İmkanı
- Çeşitli Sürgü Tipleri
- Değiştirilebilir Ø16 mm Sürgüler
- Carry-over ve Kapalı Merkez İmkanı
- Manuel, Halat Kontrol, Pnömatik, Elektro-Pnömatik, Hidrolik, Elektro-Hidrolik, Direk Elektrik, Giriş Oransal kontrol imkanı

Standard Material Specifications Standard Malzeme Özellikleri

High Resistance Cast Iron Body *Döküm Gövde*
Hard Chromium Plated Interchangeable Spools *Sertleştirilmiş Krom Kaplama Sürgüler*
Steel spring caps *Çelik Yay Kapakları*
Aluminium Lever Caps *Aluminyum Sap Kapakları*
NBR Seals *NBR Sızdırmazlık Elemanları*

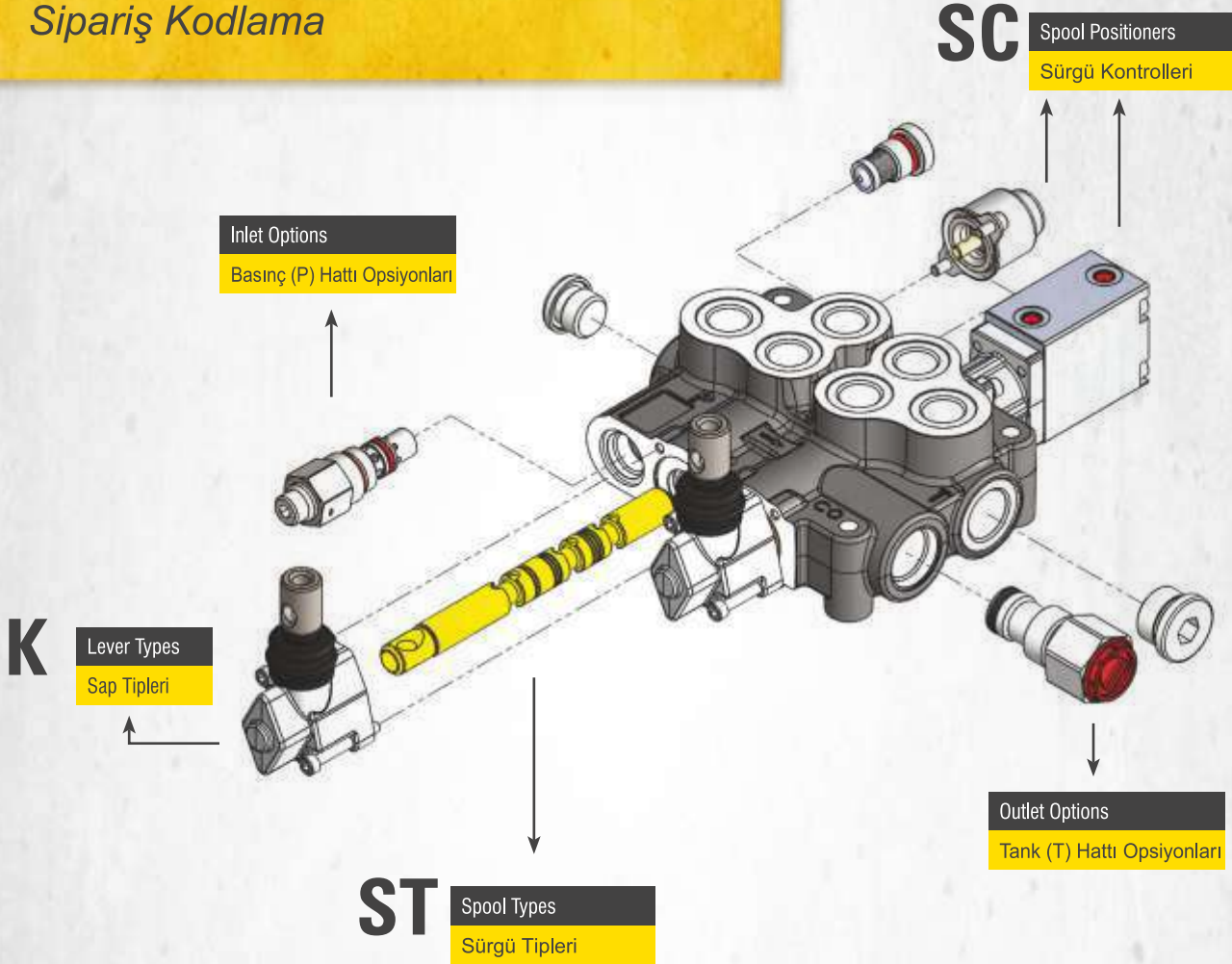
Working Conditions Çalışma Şartları

Recommended Oil Viscosity Range <i>Önerilen Yağ Viskozite Aralığı</i>	10 cSt to 75 cSt
Recommended Fluid Temperature Range <i>Önerilen Çalışma Sıcaklığı (°C)</i>	-20 to +80
Environmental Temperature Range <i>Önerilen Ortam Sıcaklığı (°C)</i>	-40 to +60
Maximum Contamination Level <i>Maksimum Kirlilik Seviyesi</i>	Class 10 (NAS 1638) 19/16 (ISO 4406)

Technical Specifications Teknik Özellikler

Nominal Flow <i>Debi</i>	80 lpm	21 US gpm
Number of Spools <i>Dilim Sayısı</i>	1 - 7	
Maximum Working Pressure <i>Maksimum Çalışma Basıncı</i>	315 bar 250 bar in Series Circuit	4600 psi 3600 psi in Series Circuit
Maximum Back Pressure <i>Maksimum Tank Hattı Basıncı</i>	30 bar	430 psi
Internal Leakage <i>İç Kaçak Değeri</i>	4 cc - 9 cc (100 Bar; 32 cSt, 40°C)	0,24 - 0,54 in³/m (1450 psi; 32 cSt, 104°F)

Order Coding
Sipariş Kodlama



WAMV702B - R(180) - 2x SC4 ST11 K3 / H

1 **2** **3** **4**

1

Valve Type *Valf Tipi*

WAMV70 Valve Series *Valf Serisi*
2 Number of Spools *Sürgü Sayısı*
B Port Thread *Port ölçüleri*

2

Inlet Options *Pompa (P) Hattı Opsiyonları*

R Main Relief Valve *Ana Emniyet Valfi*
180 Pressure Setting *Basınç Değeri*

3

Working Section *Dilim*

SC4 Spool Positioners *Sürgü Kontrol*
ST11 Spool Options *Sürgü Tipleri*
K3 Lever Types *Sap Tipleri*

4

Outlet Options *Tank (T) Hattı Opsiyonları*

H Outlet Options *Tank Hattı Opsiyonları*



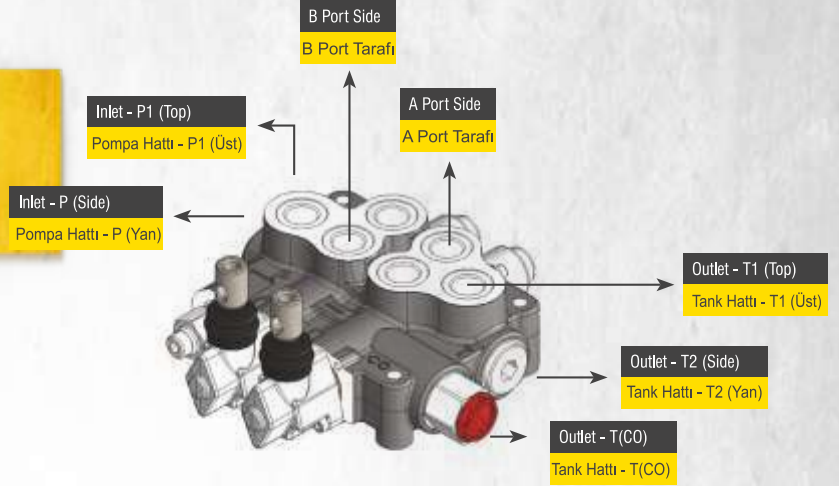
This part must be coded separately for each working section. If adjacent sections are identical then code the first section and put number of identical sections with a cross.
Example for 3 identical sections; WAMV704B-R(180)/SC1ST1/3XSC4ST1

Bu bölümdeki kodlama her dilim için ayrı ayrı yapılmalıdır.

Eğer birbirini takip eden ve aynı konfigürasyona sahip dilim isteniyorsa, aynı dilimler, dilim sayısı başa getirilip yanına çarpı konacak şekilde kodlanabilir. Örnek Kodlama; WAMV704B-R(180)/SC1ST1/3XSC4ST1

Dimensional Data

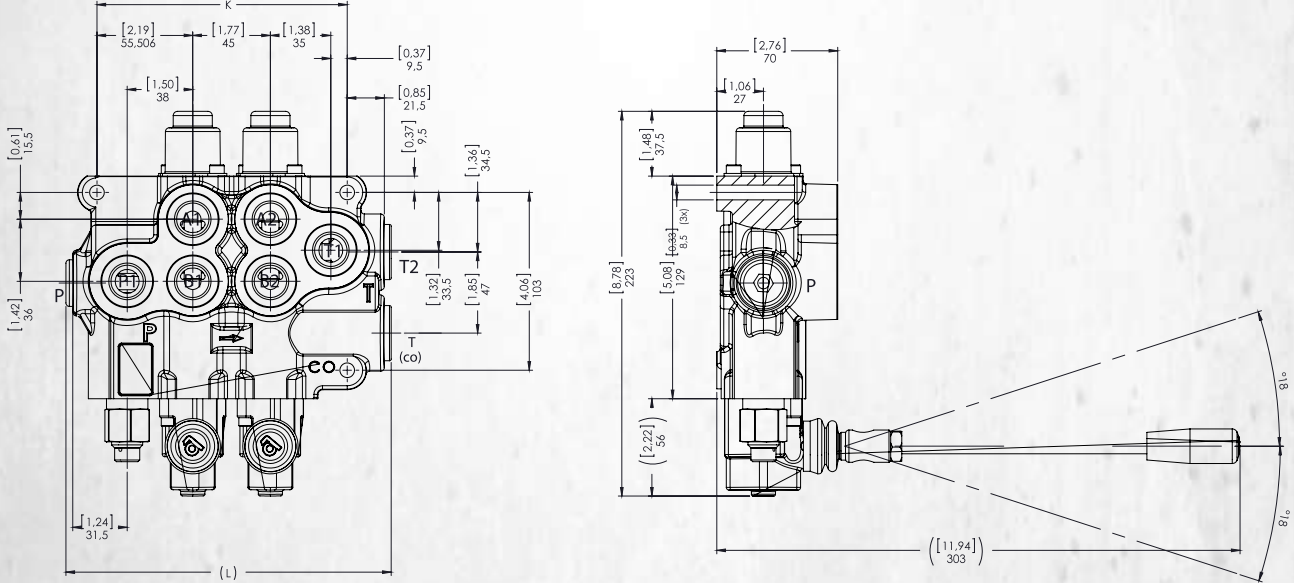
Ölçüsel Bilgi



Standard & Optional Threads Standart ve Opsiyonel Ölçüler

Thread Çalışma Şartları	Code Kod	P – P1-T1	A/B	T2	T(CO)
BSP(Standard)	B	G 1/2"	G 1/2"	G 1/2"	G 1/2"
UN-UNF	M	7-8 – 14 (SAE 10)	7-8 – 14 (SAE 10)	7-8 – 14 (SAE 10)	G 1/2"
METRIC	Z	M22x1,5	M22x1,5	M22x1,5	G 1/2"

BSP threads are standard threads. Its necessary to code the port thread after valve series during ordering in monoblock valves. Example coding; WAMV702B-R(160)/SC1ST1
 Valflerimiz standart olarak BSP Diş üretilmektedir. Talep edilen port ölçüleri monoblok valflerde valf tipi kodlamasından hemen sonra kodlanır. Örnek Kodlama; WAMV702B-R(160)/SC1ST1



Dimensions & Weight Ölçüler ve Ağırlık

Type / Tip	K		L		Weight Ağırlık	
	mm	inc	mm	inc	kg	lb
WAMV701	100	3.94	144	5.66	5.00	11.00
WAMV702	145	5.71	189	7.44	7.25	16.00
WAMV703	190	7.48	234	9.21	9.65	21.25
WAMV704	235	9.25	279	10.98	11.50	25.35
WAMV705	280	11.02	324	12.75	14.05	31.00
WAMV706	325	12.79	369	14.52	16.30	35.95
WAMV707	370	14.56	414	16.29	18.80	41.45

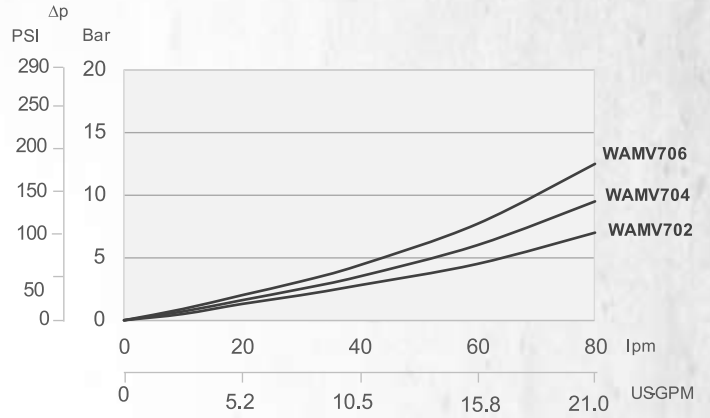
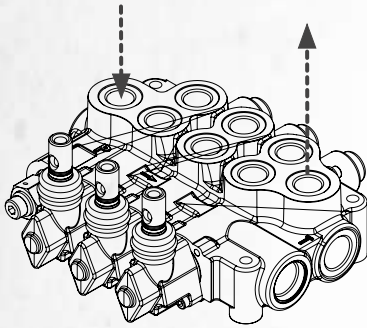
Given weights are for standard configurations. Ağırlıklar standart konfigürasyon için verilmiştir.

Performance Data

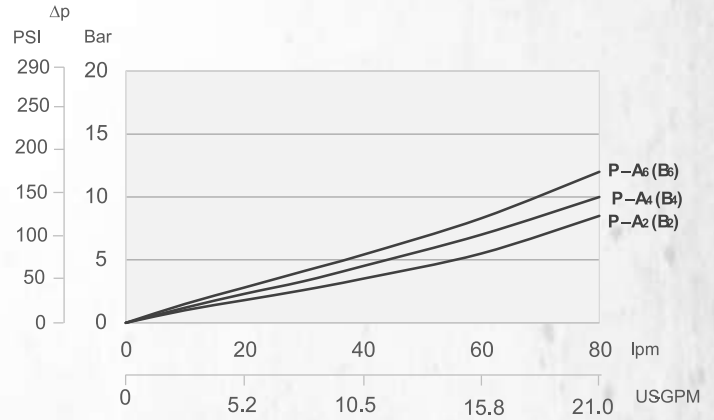
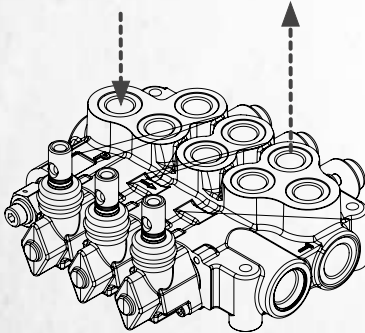
Performans Eğrileri

Pressure Drop Curves Basınç Kayıp Eğrileri

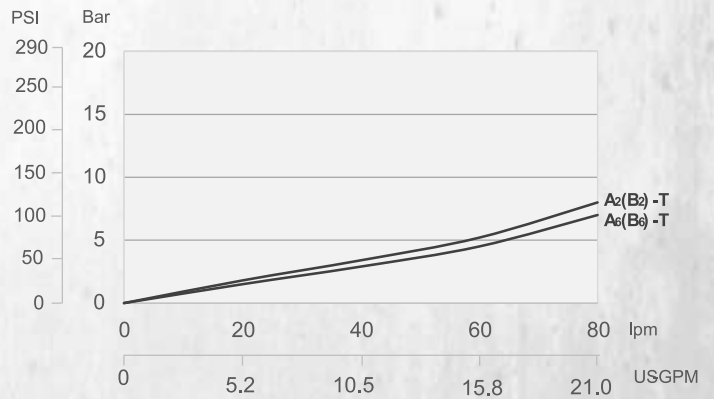
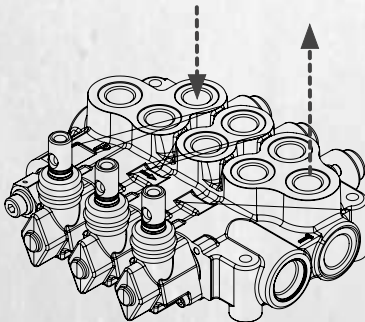
P - T



P - A/B



A/B - T



Measured with spool type ST1 and 32 cSt hydraulic oil @ 40°C.
ST1 sürgü ve 32 cSt hidrolik yağ ile 40°C'de ölçülmüştür.

Hydraulic Specifications

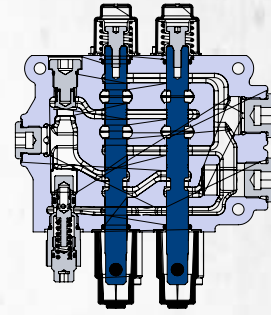
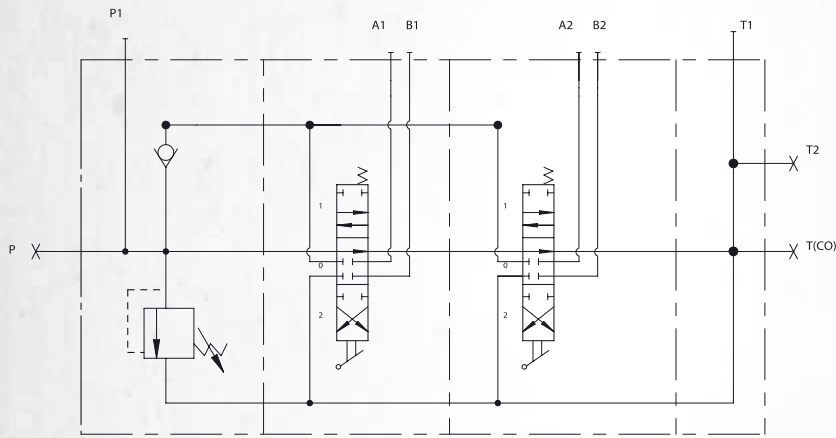
Hidrolik Devre

Parallel Circuit Paralel Devre

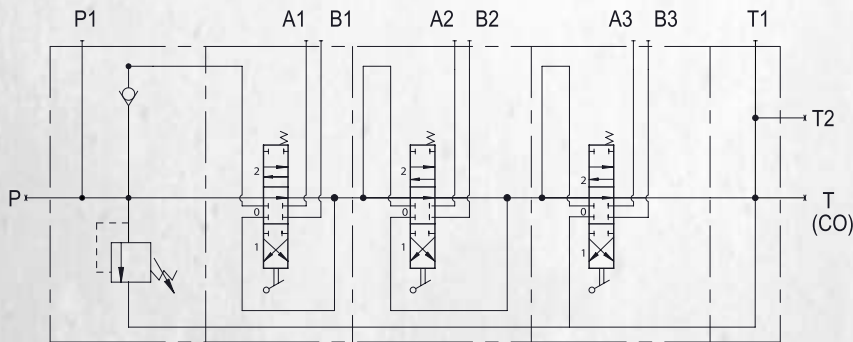
Standard configuration; Parallel circuit with upper inlet and outlet.
Standart konfigürasyon; Paralel devre, P1 ve T1 açık, P, T2 ve T(CO) kör şeklindedir.

Code / Kod

**NO
CODE**



Series Circuit Seri Devre



Code / Kod

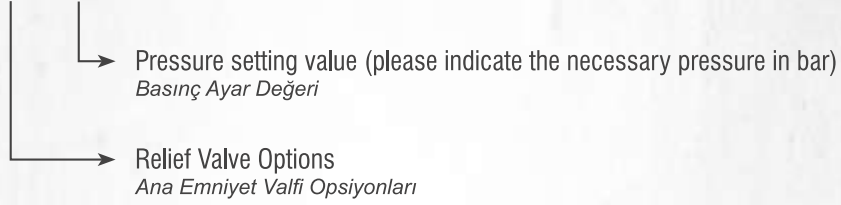
S

Maximum working pressure is 250 bar.
Maksimum çalışma basıncı 250 bar.

Inlet Option

Basınç (P) Hattı Opsiyonları

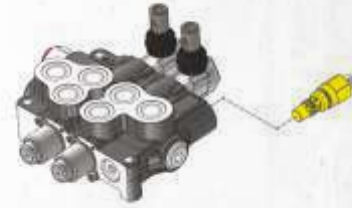
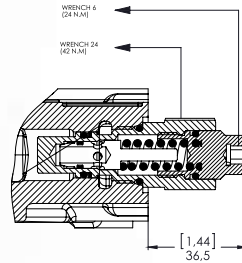
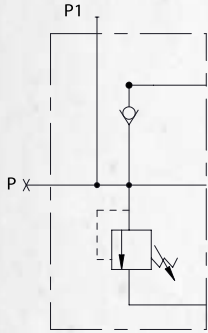
WAMV701B- **R(180)** / SC4 ST11 K3 / H



Adjustable Direct Acting Main Relief Valve *Ayarlanabilir Ana Emniyet Valfi (Direk Etkili)*

Code / Kod

R

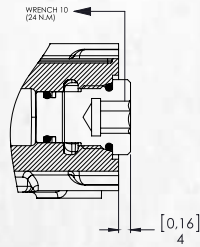
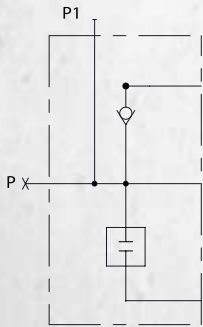


Please indicate the necessary pressure setting value. MRV is preset to 180 Bar at 15 lpm unless otherwise specified.
Lütfen ayarlanmasını istediğiniz basınç değerini bildiriniz. Ürünler standart olarak 15 lt/dk'da 180 Bara ayarlanır.

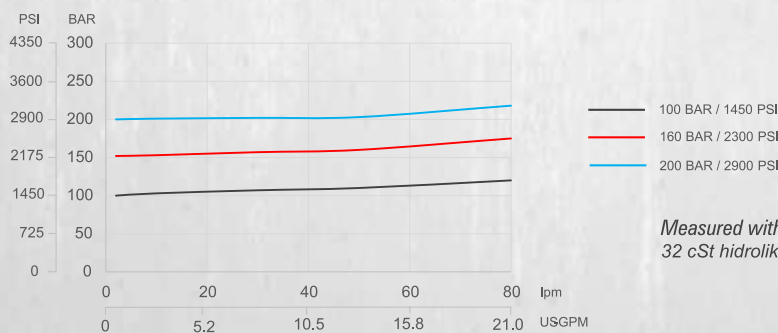
Main Relief Valve Blanking Plug *Emniyet Valfsiz*

Code / Kod

Y



Main Relief Valve Performance Data *Ana Emniyet Valfi Performans Eğrisi*



Measured with 32 cSt hydraulic oil @ 40°C and neglected tank line pressure.
32 cSt hidrolik yağ ile 40°C'de, tank hattı basıncı ihmal edilerek ölçülmüştür.

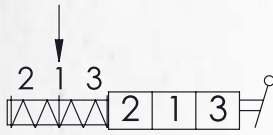
Spool Positioners Sürgü Kontrolleri

WAMV701B -R(180) / **SC4** ST11 K3 / H

↳ Spool Positioners
Sürgü Kontrolleri

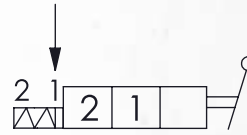
Spool Positioners with Spring Return Yay DönüŖlü Sürgü Kontrolleri

SC1 3 Positions Spring Return
3 Pozisyon Yaylı



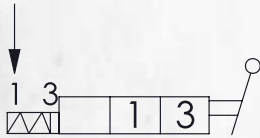
Stroke : ± 7.5 mm

SC5 2 Positions Spring Return
2 Pozisyon Yaylı



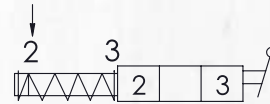
Stroke : -7.5 mm

SC6 2 Positions Spring Return
2 Pozisyon Yaylı



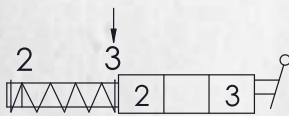
Stroke : +7.5 mm

SC11 2 Positions Spring Return in 3rd Position
2 Pozisyon, 3. Pozisyona Yaylı



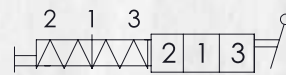
Stroke : +15 mm

SC12 2 Positions Spring Return in 2nd Position
2 Pozisyon, 2. Pozisyona Yaylı



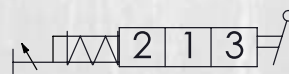
Stroke : -15 mm

SC25 3 Position Spring Return with male M8 pin extension for dual control
3 Pozisyon Yaylı, M8 Erkek Uzatmalı



Stroke : ± 7.5 mm

SC33 3 Position Spring Return with stroke limiter
3 Pozisyon Yaylı, Strok Limitleyici

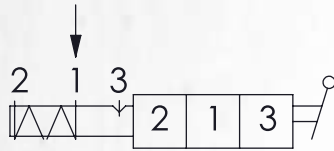


Stroke : +7,5 mm (Max.) / -7,5 mm

Spool Positioners with Detent

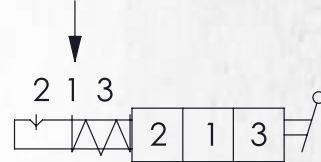
Detantlı Sürgü Kontrolleri

SC2 3 Position Spring Return, Detent in Pos. 3
3 Pozisyon Yaylı, 3.Pozisyon Detantlı



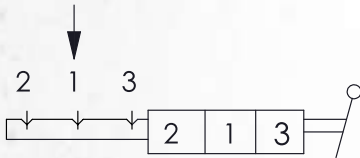
Stroke : ±7.5 mm

SC3 3 Position Spring Return, Detent in Pos. 2
3 Pozisyon Yaylı, 3.Pozisyon Detantlı



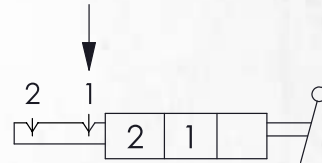
Stroke : ±7.5 mm

SC4 3 Position Detent in All Positions
3 Pozisyon Detantlı



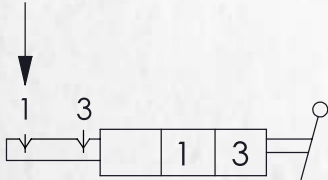
Stroke : ±7.5 mm

SC7 2 Position Detent
2 Pozisyon Detantlı



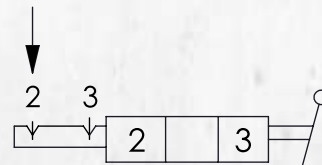
Stroke : -7.5 mm

SC8 2 Position Detent
2 Pozisyon Detantlı



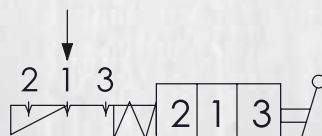
Stroke : +7.5 mm

SC13 2 Position Detent
2 Pozisyon Detantlı



Stroke : +15 mm

SC28 3 Position Spring Centered with Detent
3 Pozisyon Yaylı ve Detantlı

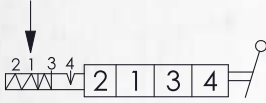


Stroke : ±7.5 mm

4 Position a Side Spool Positioners

4 Pozisyon A Tarafı Sürgü Kontrolleri

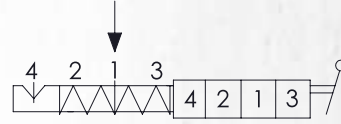
SC9 4 Position Spring Return, Detent in 4th Pos.
4 Pozisyon Yaylı, 4.Pozisyon Detantlı



Used with Spool ST9B
ST9B Sürgü ile kullanılır

Stroke : ± 7.5 mm / +5.5 mm

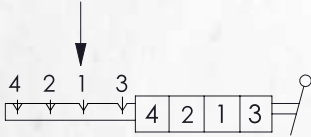
SC23 4 Position Spring Return, Detent in 4th Pos.
4 Pozisyon Yaylı, 4.Pozisyon Detantlı



Used with Spool ST9A
ST9A Sürgü ile kullanılır

Stroke : ± 7.5 mm / -5.5 mm

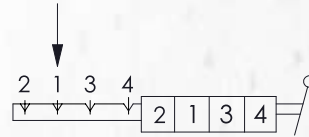
SC10 4 Position Detent in All Positions
4 Pozisyon Tüm Pozisyonlar Detantlı



Used with Spool ST9A
ST9A Sürgü ile kullanılır

Stroke : ± 7.5 mm / -5.5 mm

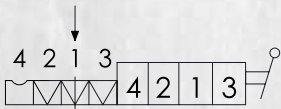
SC24 4 Position Detent in All Positions
4 Pozisyon Tüm Pozisyonlar Detantlı



Used with Spool ST9B
ST9B Sürgü ile kullanılır

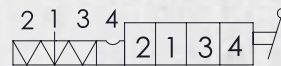
Stroke : ± 7.5 mm / +5.5 mm

SC21 4 Position Spring Return, Feel Detent in 4th Pos.
4 Pozisyon Yaylı, 4.Pozisyon Hissetmeli Detantlı



Used with Spool ST10A
ST10A Sürgü ile kullanılır

SC22 4 Position Spring Return, Feel Detent in 4th Pos.
4 Pozisyon Yaylı, 4.Pozisyon Hissetmeli Detantlı



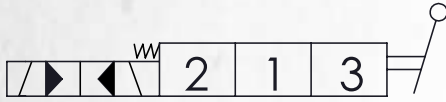
Used with Spool ST10B
ST10B Sürgü ile kullanılır

SC17

On-Off Electro-Hydraulic Control

On-Off Elektro-Hidrolik Kontrol

Supply Voltage	Order Code
12VDC	SC172
24VDC	SC174



Operation Characteristics

Pilot Pressure <i>Pilot Basıncı</i>	Min. 10 Bar / 145 PSI Max. 25 Bar / 360 PSI
Back Pressure <i>Tank Basıncı</i>	Max. 3 Bar

Coil Characteristics

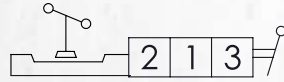
Coil Connection Type <i>Bobin Bağlantı Tipi</i>	DIN 43650
Supply Voltage <i>Voltaj</i>	12VDC, 24VDC
Protection Type <i>Koruma</i>	IP65
Nominal Voltage Tolerance <i>Nominal Voltaj Toleransı</i>	±10%
Duty cycle <i>Görev Çevrimi</i>	100%
Absorbed Power <i>Güç</i>	18W
Coil Insulation Class <i>Yalıtım Sınıfı</i>	Class "F" 155°C
Maximum Temperatures <i>Maksimum Çalışma Sıcaklığı</i>	100°C

Stroke (mm) <i>Strok (mm)</i>	±7,5mm
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SC18

3 Positions, Microswitch Operation in both positions (NC)

3 Pozisyon, Çift Taraflı Mikrosviç Kontrol (NK)

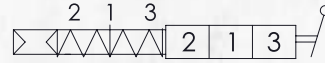


Stroke : ±7.5 mm

SC15

On-Off Pneumatic Control

On-Off Pnömatik Kontrol

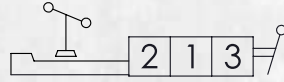


Stroke : ±7.5 mm

SC18A

3 Positions, Microswitch Operation in 3rd Position

3 Pozisyon, 3.Pozisyona Mikrosviç Kontrol

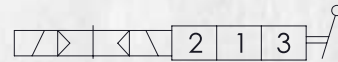


Stroke : ±7.5 mm

SC30

On-Off Electro-Pneumatic Control

On-Off Elektro-Pnömatik Kontrol



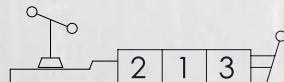
Stroke : ±7.5 mm

Supply Voltage	Order Code
12VDC	SC302
24VDC	SC304

SC18B

3 Positions, Microswitch Operation in 2nd Position

3 Pozisyon, 2.Pozisyona Mikrosviç Kontrol

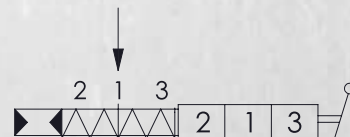


Stroke : ±7.5 mm

SC16

On-Off Hydraulic Control

On-Off Hidrolik Kontrol



Stroke : ±7.5 mm

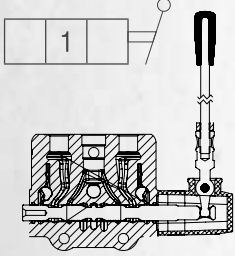
Spool Options Sürgü Tipleri

WAMV701B - R(180) / SC4 **ST11** K3 / H

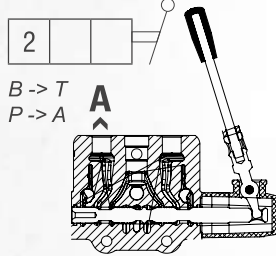
Spool Options
Sürgü Tipleri

Spool Positions Sürgü Pozisyonları

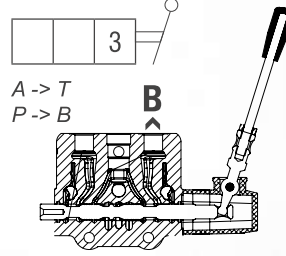
1st Position
1. Pozisyon
Spool Neutral Position
Nötr



2nd Position
2. Pozisyon
Spool In Position
Mil İçerde

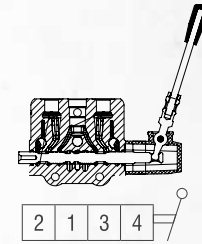


3rd Position
3. Pozisyon
Spool Out Position
Mil Dışarda

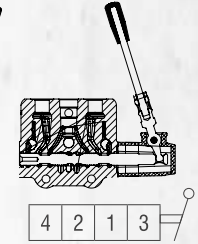


4th Position
4. Pozisyon

4th Pos. Spool Out
4. Pozisyon Mil Dışarda

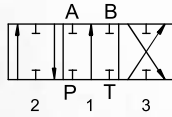


4th Pos. Spool In
4. Pozisyon Mil İçerde



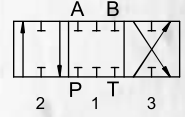
ST1

3 Position, Double Acting
3 Pozisyon, Çift Etkili



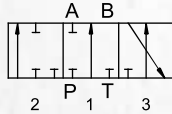
ST4

3 Position, Closed Center
3 Pozisyon, Kapalı Merkez



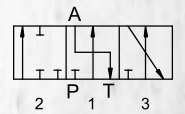
ST2

3 Position, A Port Single Acting
3 Pozisyon, A Port Tek Etkili



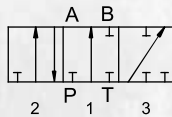
ST5

3 Position, A Port Single Acting and to Tank
3 Pozisyon, A Port Tek Etkili ve Tanka Açık



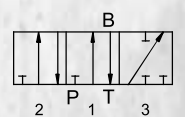
ST3

3 Position, B Port Single Acting
3 Pozisyon, B Port Tek Etkili



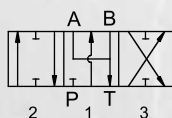
ST6

3 Position, B Port Single Acting and to Tank
3 Pozisyon, B Port Tek Etkili ve Tanka Açık



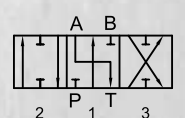
ST11

3 Position, Double Acting, A/B to Tank
3 Pozisyon, Çift Etkili A ve B Tanka Açık



ST7

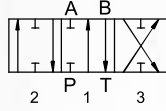
3 Position, Double Acting A to Tank
3 Pozisyon, Çift Etkili ve A Tanka Açık



ST8

3 Position,
Double Acting B to Tank

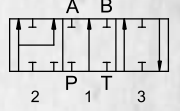
3 Pozisyon,
Çift Etkili ve B Tanka Açık



S12A

3 Position, Double Acting With
Regenerative in 3rd Position
(2nd Position Spool In)

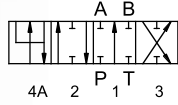
3 Pozisyon, Çift Etkili
3. Pozisyonda Rejeneratif
(Mil İçerde 2. Pozisyon)



ST9A

4 Position, Double Acting with
Float in 4th Position
(4th Position Spool In)

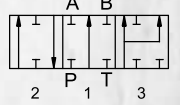
4 Pozisyon, 4. Pozisyonda Float
(Mil İçerde 4. Pozisyon)



ST12B

3 Position, Double Acting With
Regenerative in 2nd Position
(3rd Position Spool Out)

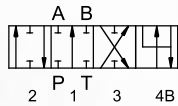
3 Pozisyon, Çift Etkili
2. Pozisyonda Rejeneratif
(Mil Dışarda 3. Pozisyon)



ST9B

4 Position, Double Acting with
Float in 4th Position
(4th Position Spool Out)

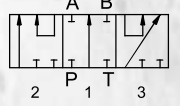
4 Pozisyon, 4. Pozisyonda Float
(Mil Dışarda 4. Pozisyon)



ST19

3 Position, Series Spool

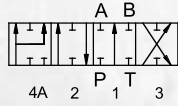
3 Pozisyon, Seri Sürgü



ST10A

4 Position, Double Acting with
Regenerative in 4th Position
(4th Position Spool In)

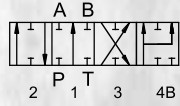
4 Pozisyon,
4. Pozisyonda Rejeneratif
(Mil İçerde 4. Pozisyon)



ST10B

4 Position, Double Acting With
Regenerative in 4th Position
(4th Position Spool Out)

4 Pozisyon,
4. Pozisyonda Rejeneratif
(Mil Dışarda 4. Pozisyon)



Lever Types

Sap Tipleri

WAMV501A - R(180) / SC4 ST11 **K3** / H

Lever Types
Sap Tipleri

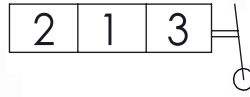
NO
CODE

Standard Lever Kit
Standart Sap Kapağı



K1

Reverse Lever Kit
Ters montaj Sap Kapağı



K2

No Lever
Sap Kapaksız



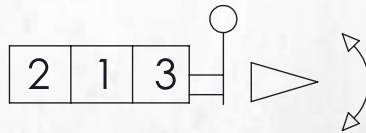
K3

Dust Proof Plate Kit
Toz Kapaklı



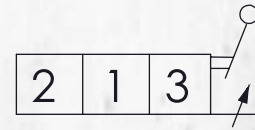
K4

Safety Lever
Güvenlik Kolu



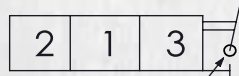
K5

Lever Cap with Spool Limiter
Sürgü Strok Kısıtlayıcı



K6

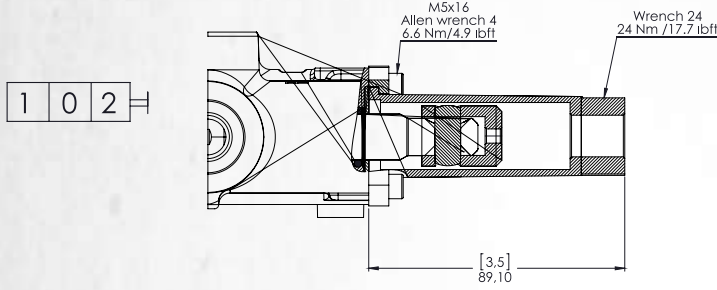
Rev. Lever Cap with Spool Limiter
Ters Montaj Sürgü Strok Kısıtlayıcı



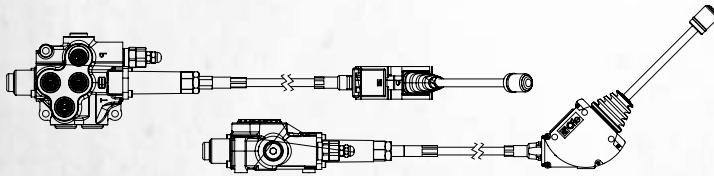
KT

Cable Connection Kit

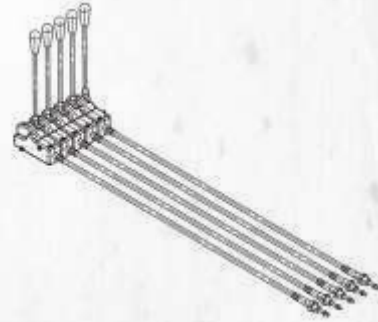
Kablo Bağlantı Kiti



Lever Cable Remote Control Halat Kontrol



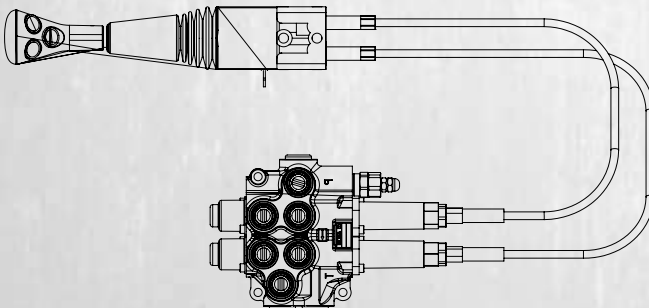
Cable remote control for Group of Levers Halat Kontrol Grubu



Lever cable remote control and cable remote control for group of levers are a modular system offering unlimited number of levers together through screws, also with many different configurations and cables lengths. Assembled on the valve only on request and extra charge. Please contact our sales department for details.

Halat kontrol ve halat kontrol grubu için farklı uzunlukları mevcuttur. Halat Kontrol grubu ise talebe göre çeşitli dilim sayıları için ve çeşitli uzunluklarda temin edilir. Kontrol grubu birbirine saptamlarla bağlanmaktadır. Lütfen detaylı bilgi için satış departmanımızla bağlantıya geçiniz.

Remote Joystick Control Joystik Halat Kontrol



Remote joystick control is available with several options. Please indicate the cable length demanded and contact our sales department for further demands.

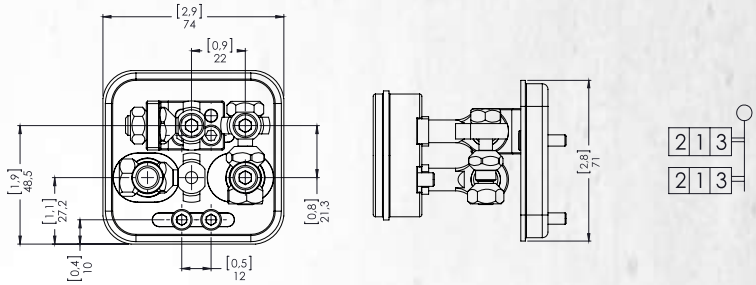
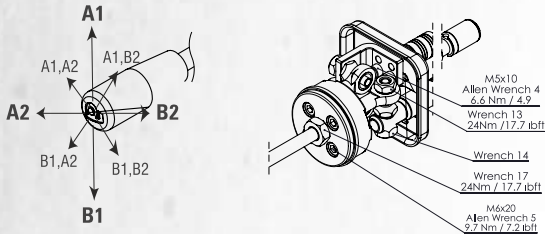
Joystik halat kontrol farklı çeşit ve uzunluklarda mevcuttur. Lütfen satış departmanımızla bağlantıya geçiniz.

Joystick Control

Joystik Kontrol

K7 Manual Joystick with pivot on top left

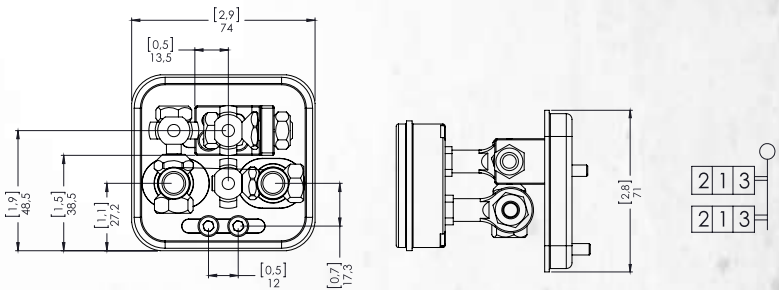
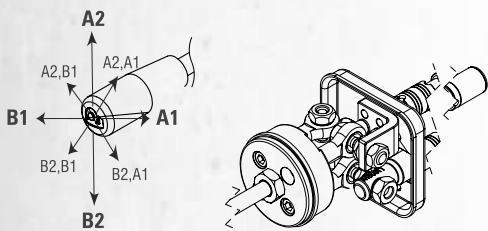
Manuel Joystick Kontrol (Pivot Sol Üst)



K7 is standard configuration unless otherwise specified.
Aksi belirtilmedikçe K7 standart konfigürasyondur.

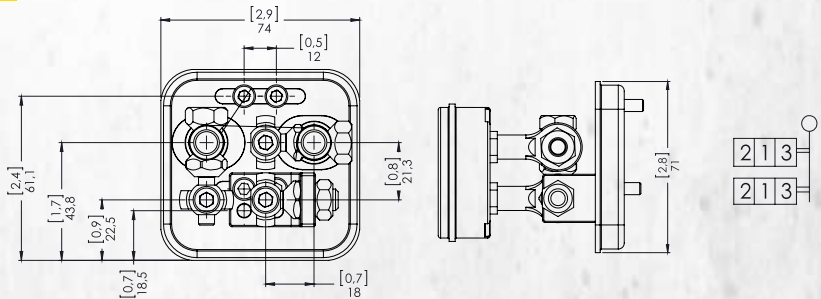
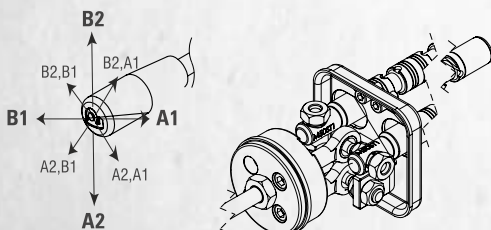
K7B Manual Joystick with pivot on top right

Manuel Joystick Kontrol (Pivot Sağ Üst)



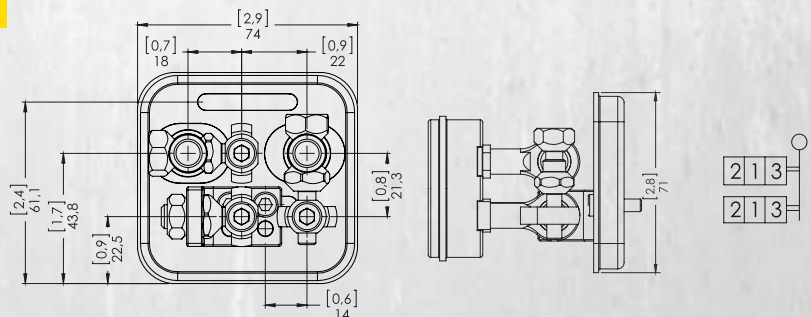
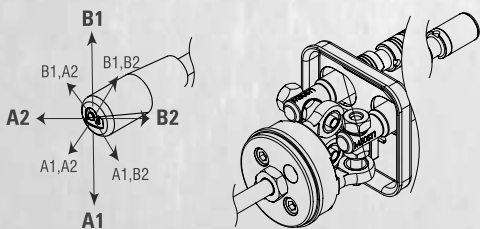
K7C Manual Joystick with pivot on bottom right

Manuel Joystick Kontrol (Pivot Sağ Alt)



K7D Manual Joystick with pivot on bottom left

Manuel Joystick Kontrol (Pivot Sol Alt)



Outlet Options

Tank (T) Hattı Opsiyonları

WAMV701B - R(180) / SC4 ST11 K3 / H

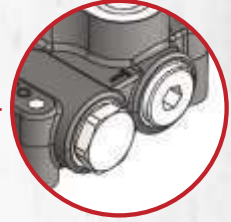
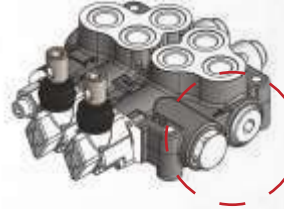
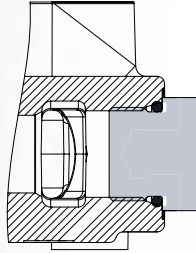
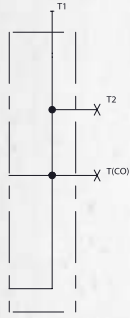
Outlet Options
Tank (T) Hattı Opsiyonları

Standard Open Center Upper Outlet (T1 open, T2 plugged)

Standart Açık Merkez (T1 açık, T2 kör)

Code / Kod

**NO
CODE**



Please contact our sales department for other outlet options.
Özel talepleriniz için lütfen Satış Departmanımızla bağlantıya geçin.

Outlet with Carry-Over

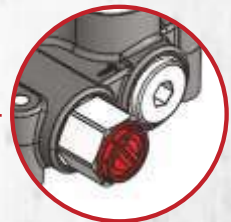
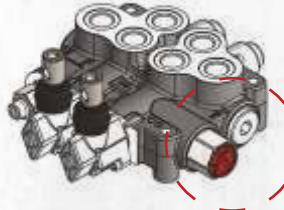
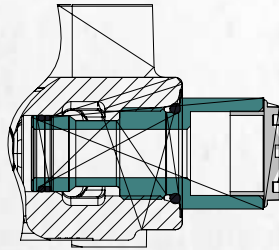
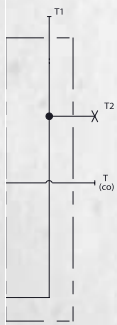
Carry-Over

When Carry-Over is used for series connection with another valve, T1 of the first valve must be connected to the tank.

Carry-over kullanıldığında, 1.valfin tank hattı (T1) mutlaka tanka bağlanmalıdır.

Code / Kod

H



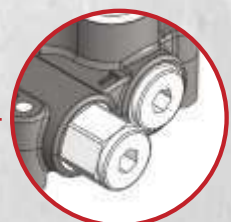
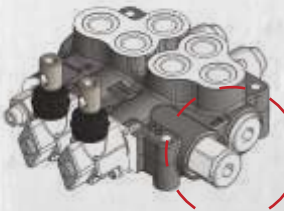
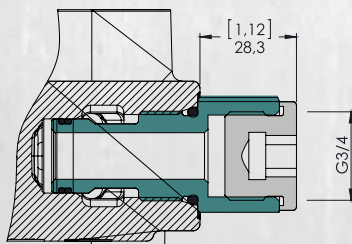
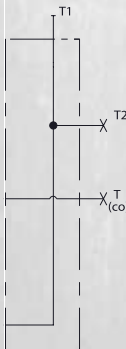
Carry-over is coded at the outlet options part. Ex; AMV701B-R(200)/SC1ST1/H
Carry-over, dönüş kapağı bölümünde kodlanır.. Örn; AMV701B-R(200)/SC1ST1/H

Outlet with Closed Center Plug

Kapalı Merkez

Code / Kod

K



Kapalı Merkez, dönüş kapağı bölümünde kodlanır.. Örn; WAMV701B-R(200)/SC1ST1/K
Closed Center is coded at the outlet options part. Ex; WAMV701B-R(200)/SC1ST1/K

SERIES CIRCUIT
PARALEL CIRCUIT
Pneumatic
Hydraulic
CONTROL
REMOTE JOYSTICK
SPOOL
CABLE REMOTE
LEVER
MONOBLOCK VALVE
Directional Control
OIL VISCOSITY
BSP
COIL CONNECTION
MAIN RELIEF VALVE
Inlet
Outlet
CARRY-OVER
CLOSED CENTER PLUG



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