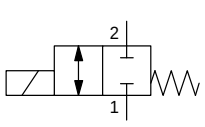
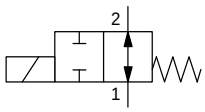
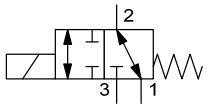
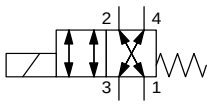
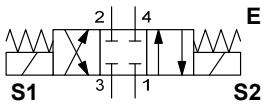
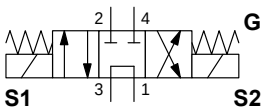
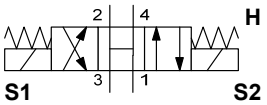
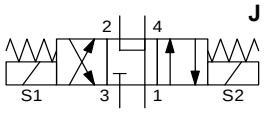
HYDAC INTERNATIONAL

Compact Hydraulics
Minivalves

E 51.400.1 /06.17

Content

Directional spool valves	Symbol	Type	Q_{max} (l/min)	p_{max} (bar)	cavity		Brochure no.
2/2-spool valve, normally closed	 W	WK06W-01	10	350	U	FC06-2	5.148.0
2/2-spool valve, normally open	 V	WK06V-01	15	350	U	FC06-2	5.156.0
3/2-spool valve	 C	WK06C-01	10	350	U	FC06-3	5.149.0
4/2-spool valve	 Y	WK06Y-01	10	350	U	FC06-4	5.150.0
4/3-spool valve	 E	WK06E-01	11	350	U	FC06-4	5.151.0
4/3-spool valve	 G	WK06G-01	7	350	U	FC06-4	5.152.0
4/3-spool valve	 H	WK06H-01	9	350	U	FC06-4	5.153.0
4/3-spool valve	 J	WK06J-01	11	350	U	FC06-4	5.154.0

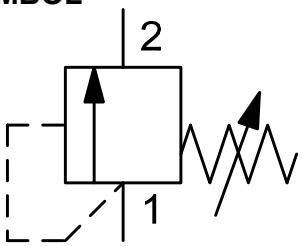
Coils for Minivalves	Type (Part No.)	Nominal voltage	Electrical connection	Brochure No.
Plug Type G	2610160	12 VDC	Plug to EN 175301-803 Form B, DIN 43650B	5.155.0
	2610161	24 VDC		
	2610156	105 VDC	Plug for DC coils Part No. 2600570	
	2610159	205 VDC		
*Plug with rectifier	2610156 + 2600582*	115 VAC	Plug with integrated rectifier for AC coils Part No. 2600582	
(see right side)	2610159 + 2600582*	230 VAC		
Plug Type N	2610149	12 VDC	Deutsch plug, axial	5.155.0
	2610150	24 VDC		
Plug Type L	2610151	12 VDC	Coil with 2 leadwires 0,75mm², 450 mm long	5.155.0
	2610162	24 VDC		

HYDAC INTERNATIONAL

Pressure Relief Valve
Poppet type, direct acting
Cartridge-Minivalve – 350 bar
DB06C-01

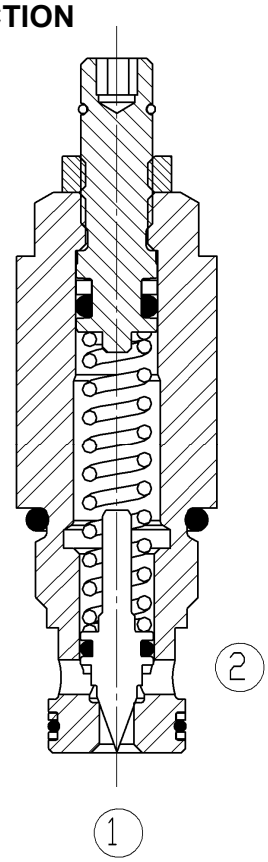
UNF

SYMBOL



up to 20 l/min
up to 350 bar

FUNCTION



The Pressure relief valve DB06C is a direct acting, spring loaded valve with damped characteristics. Its job is to limit the pressure in the system. The spring acts with a certain force on the piston and presses it on the valve seat. On the opposite side the system pressure works at port 1. If the hydraulic force is lower than the spring pressure the valve remains closed. Only if the force is higher, the valve opens and the flow will be let to port 2 (tank). If the system pressure is equal to the spring pressure the valve closes again.
Attention: Pressure at port 2 increases the opening pressure! If ports are interchanged or the pressure adjustment is higher than the operating pressure, the function of the valve is invalid.

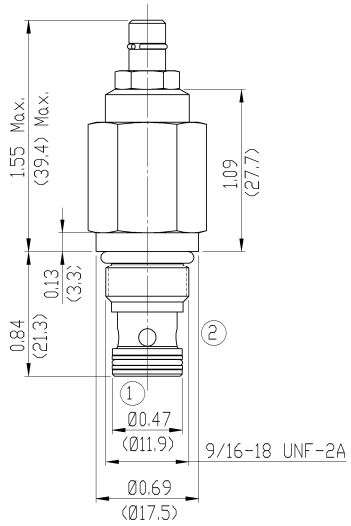
FEATURES

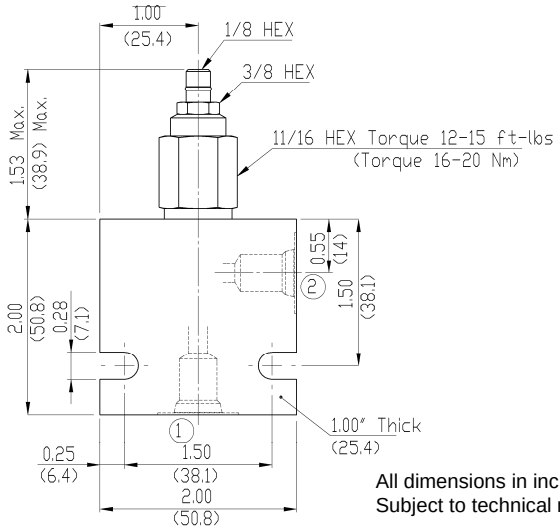
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Fast response
- Adjustable under full system pressure
- Adjustable over the u.m. pressure range
- Various pressure ranges up to 350 bar
- Poppet type valve with damped characteristics

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 20 l/min
Pressure ranges:	0 up to 125 bar 0 up to 210 bar 35 up to 350 bar
Leakage:	leakage-free, < max. 0,35 cm³/min at 75% nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	0,068 kg

DIMENSIONS

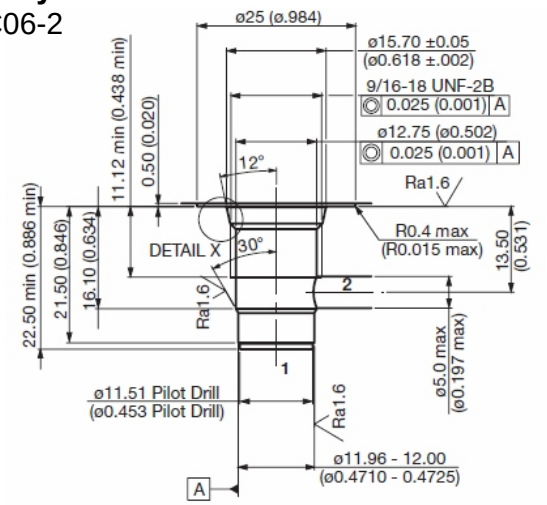


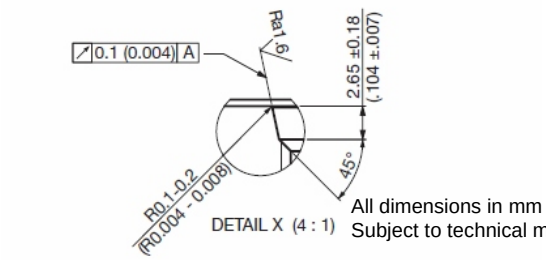


All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

MODEL CODE

DB06C – 01 – C – N – 400 V 300

Basic model
Pressure relief valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Pressure range
180 = 0 up to 125 bar (1800PSI)
300 = 0 up to 210 bar (3000PSI)
500 = 35 up to 350 bar (5000PSI)

Adjustment option
V = adjustable by tool

Setting
omission = 50% of max. Pressure
300 = factory preset pressure in PSI (/10)
Other pressures on request

Standard models

Name	Part No.
DB06C-01-C-N-180V	2610322
DB06C-01-C-N-300V	2610324
DB06C-01-C-N-500V	2610342

Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

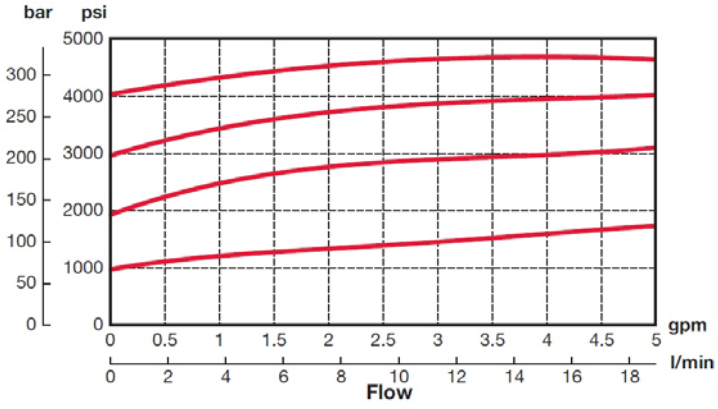
other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C



Annotation
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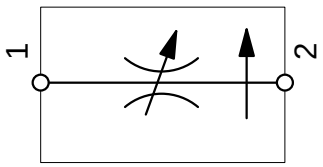
HYDAC INTERNATIONAL

SYMBOL

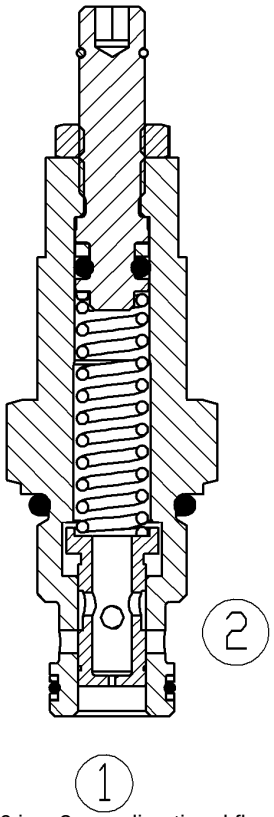


Flow Regulator
Spool type, direct acting
Cartridge-Minivalve – 350 bar
SR06-01

UNF

up to 15 l/min
up to 350 bar

FUNCTION



The SR06 is a 2 way directional flow control-valve, which keeps the nominal flow constant by means of a control function. The nominal flow is almost independent of the pressure and the viscosity. The valve is equipped with fixed orifice and integrated pressure compensator. The measuring orifice determines the nominal flow-adjustment range which is adjustable within a small range. If there is flow from port 1 to 2, a pressure differential is created at the measuring orifice. If the pressure compensator is in regulating position there is a balance of pressure differential at control piston surface on the one side and spring force on the other side. With rising flow (higher pressure differential) the cross-section of the regluating oricifice will be controlled that there is a balance of forces. Hereby a constant outlet flow will be reached.

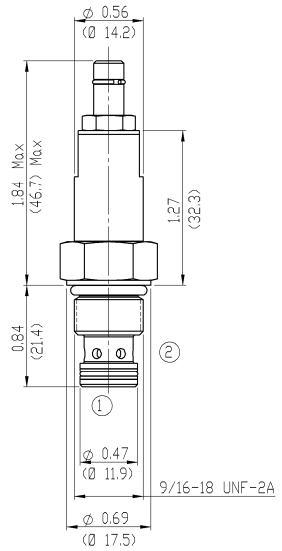
FEATURES

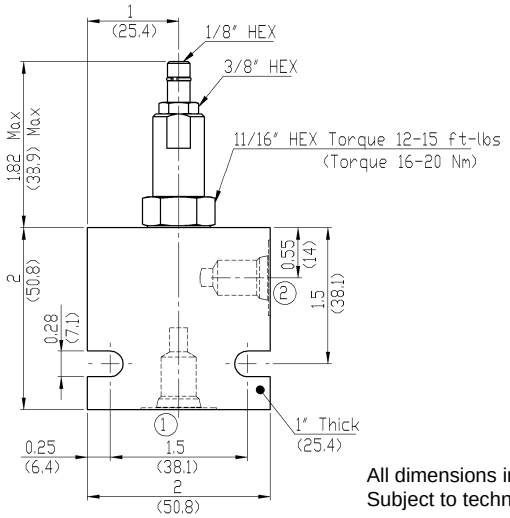
- All exposed surfaces corrosion-proof
- Pressure compensated flow control of consumers
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Superior stability throughout the entire flow range

SPECIFICATIONS

Operating pressure:	max. 350 bar at port 1 (pump) max. 210 bar at port 2 (consumer)
Nominal flow:	max. 15 l/min
Flow ranges:	0,25 up to 1,00 l/min 1,00 up to 3,80 l/min 3,80 up to 15,0 l/min
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	0,023 kg

DIMENSIONS

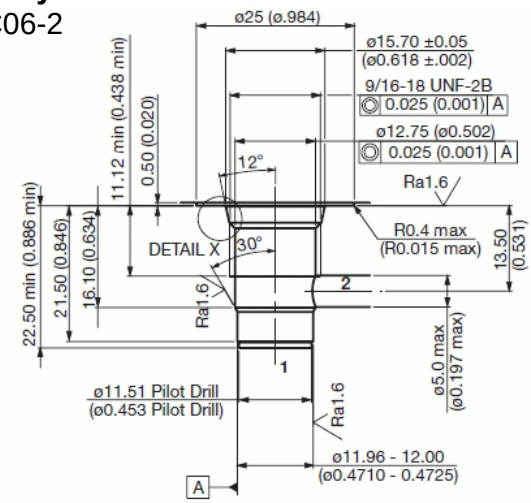


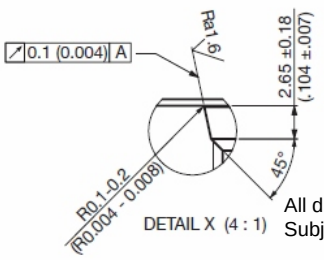


All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

MODEL CODE

SR06 – 01 – C – N – 0.3 V 0.1

Basic model
flow control valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Nominal flow range
0.3 = 0.25 up to 1,00 l/min (0.3 gpm)
1.0 = 1.00 up to 3,80 l/min (1.0 gpm)
4.0 = 3.80 up to 15,0 l/min (4.0 gpm)

Adjustment option
V = adjustable by tool

Setting
none = 50% of maximal Nominal flow
0.1 = 0.23 l/min – optional pre-adjustment on request

Standard models

Name	Part No.
SR06-01-C-N-0.3V	2610213
SR06-01-C-N-1.0V	2610194
SR06-01-C-N-4.0V	2610214

Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

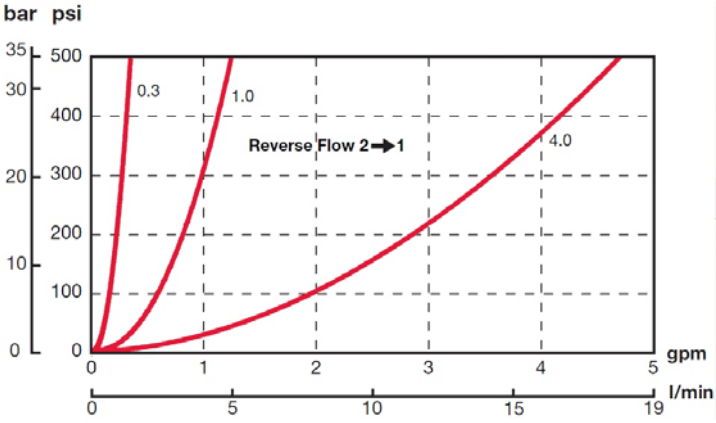
other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C



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HYDAC INTERNATIONAL

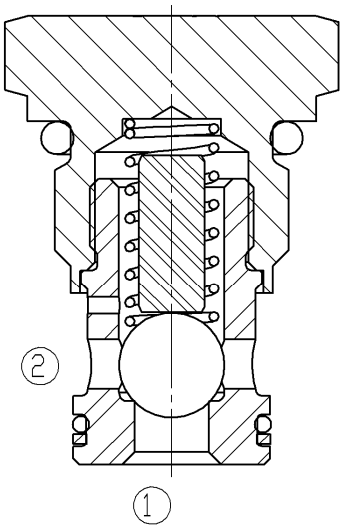
Check Valve
Ball type
Cartridge-Minivalve – 350 bar
RV06A-01

UNF

SYMBOL

up to 20 l/min
up to 350 bar

FUNCTION



The check valve RV06A is a direct acting, spring loaded ball valve.
In the valve the spring holds the ball in closed position and blocks therefore from port 2 to 1. The valve opens, if the pressure at port 1 is higher than the pressure at port 2 including the spring force.

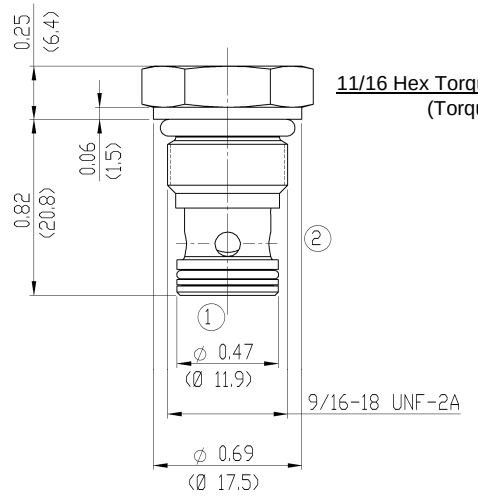
FEATURES

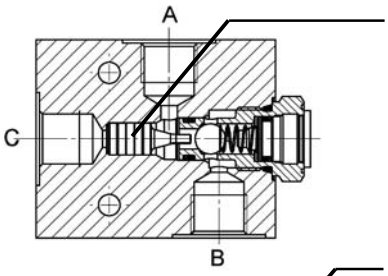
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Superior stability throughout the entire flow range

SPECIFICATIONS

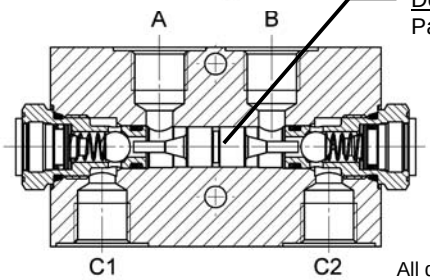
Operating pressure:	max. 350 bar
Nominal flow:	max. 20 l/min
Cracking pressures:	0,35 bar 2,10 bar
Leakage:	leakage-free, < max. 0,35 cm³/min at nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Ball: hardened steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	0,045 kg

DIMENSIONS





Optional
Piston for pilot–to-open
Single side
Part No. 2610216

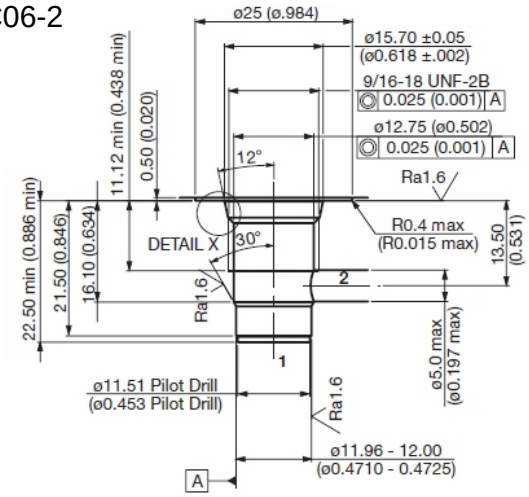


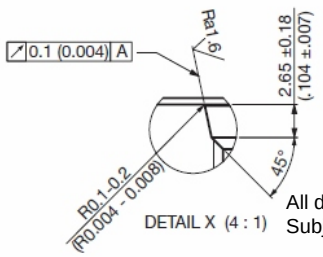
Double side
Part No. 2610217

All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

MODEL CODE

RV06A – 01 – C – N – 30

Basic model
Check valve

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Setting
5 = 0.35 bar (5 PSI)
15 = 1.0 bar (15 PSI)
30 = 2.1 bar (30 PSI)
70 = 4.8 bar (70 PSI)

Standard models

Name	Part No.
RV06A-01-C-N-05	2610212
RV06A-01-C-N-30	2610154

Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

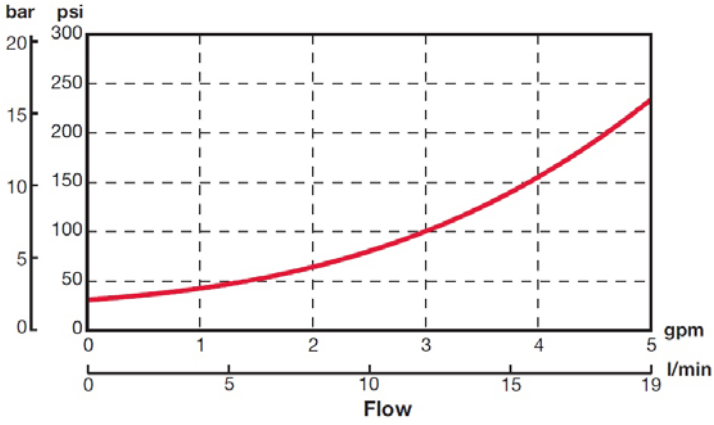
other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C



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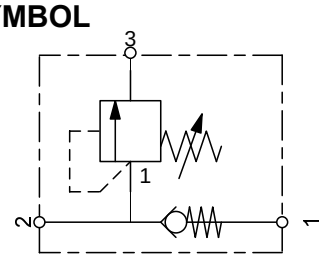
HYDAC INTERNATIONAL

SYMBOL

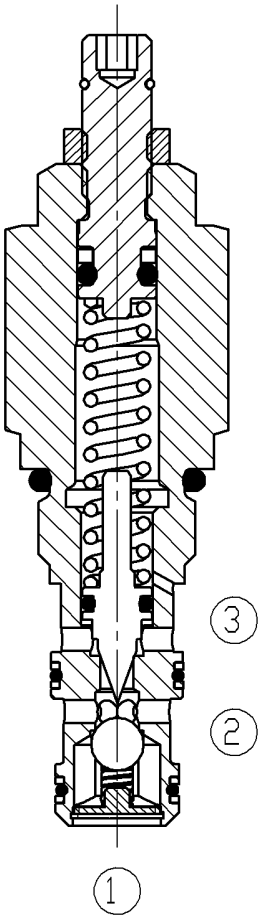


up to 20 l/min
up to 350 bar

Check Valve
Ball type
with pressure relief function
Cartridge-Minivalve – 350 bar
RV06C-01

UNF

FUNCTION



The check valve RV06C is a direct acting, spring loaded ball valve with integrated pressure relief valve.
If there is no flow the spring holds the ball in closed position and blocks therefore flow from port 1 to 2. The check valve opens, if the pressure at port 2 is higher than the pressure at port 1 including the spring force. If the pressures rises in the inlet pipe over the pre-adjusted pressure the relief valve opens to tank. Any pressure at port 3 is additive to the relief pressure setting.

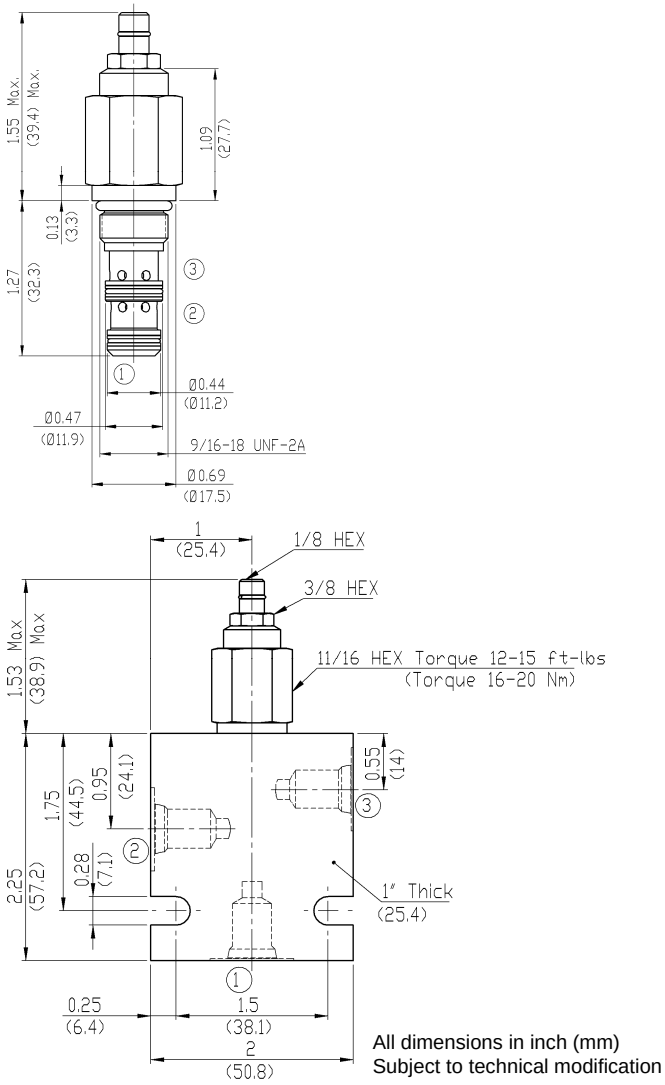
FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Combination of two functions in one valve
- Pressure ranges up to 350 bar
- adjustable under full pressure
- fast closing
- protecting the system and the pump before pressure peaks
- Pressure relief with damped piston making the valve less prone to vibrations

SPECIFICATIONS

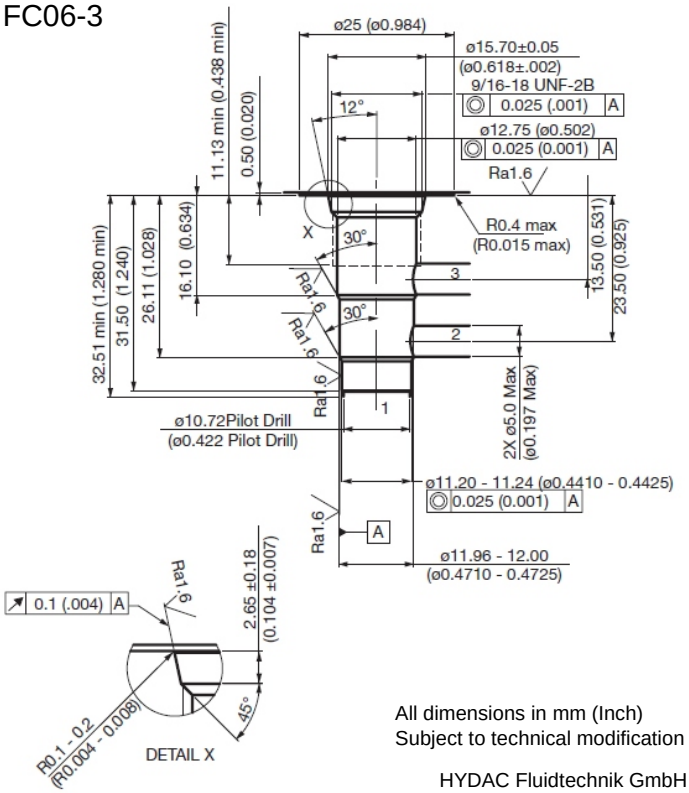
Operating pressure:	max. 350 bar
Nominal flow:	max. 20 l/min
Pressure ranges (DB):	0 up to 125 bar 0 up to 210 bar 35 up to 350 bar
Cracking pressure (check function):	0,35 bar
Leakage:	leakage-free, < max. 0,35 cm³/min at 75% nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-3
Weight:	0,027 kg

DIMENSIONS



All dimensions in inch (mm)
Subject to technical modification

Cavity
FC06-3



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582050
Countersink	2582051

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MODEL CODE

RV06C – 01 – C – N – 180 V 100

Basic model
Check valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Pressure range
180 = 0 up to 125 bar (1800 PSI)
300 = 0 up to 210 bar (3000 PSI)
500 = 35 up to 350 bar (5000 PSI)

Adjustment option
V = adjustable by tool

Setting
none = 50% of max. Pressure
100 = 69 bar (1000 PSI) – factory preset pressure

Standard models

Name	Part No.
RV06C-01-C-N-180V	2610323
RV06C-01-C-N-300V	2610325
RV06C-01-C-N-400V	2610343

Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH063-SB2	3740562	steel, zinc plated	G1/4	420 bar
FH063-AB2	3741286	Alu, anodized	G1/4	245 bar

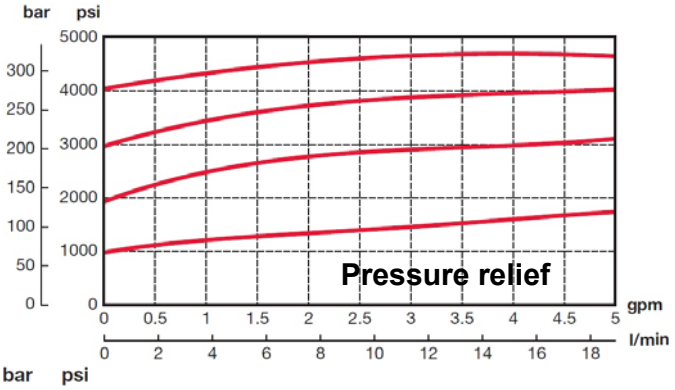
other line bodies on request

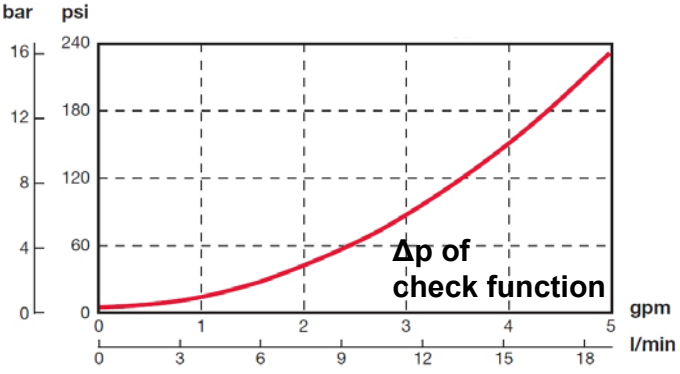
Seal kits

Code	Part No.
Seal kit-NBR	2610186
Seal kit-FKM	2610187

PERFORMANCE

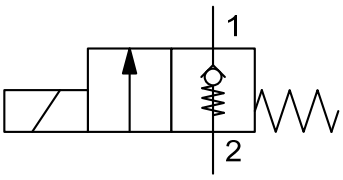
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

SYMBOL

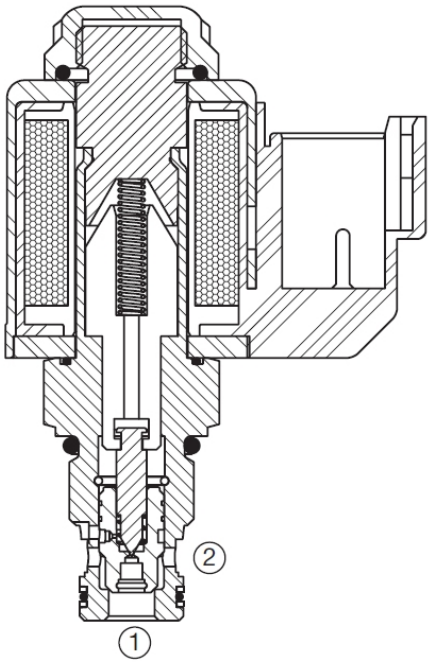


up to 20 l/min
up to 350 bar

2/2 Solenoid Directional Valve Poppet type, pilot operated, normally closed Cartridge-Minivalve – 350 bar WS06Z-01

UNF

FUNCTION



In de-energized mode the valve blocks flow from port 2 to 1.
In the opposite direction the valve piston opens at a pressure differential from approx. 1,8 bar (Check function).
If energized, there is flow from port 2 to 1. A backflow from port 1 to 2 is severely restricted.

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

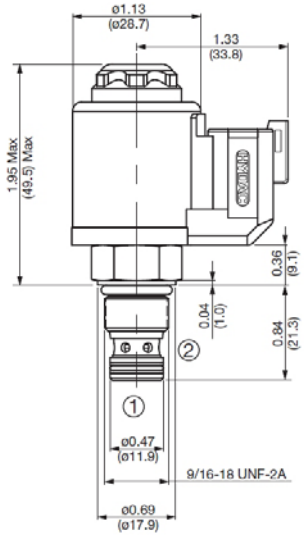
SPECIFICATIONS

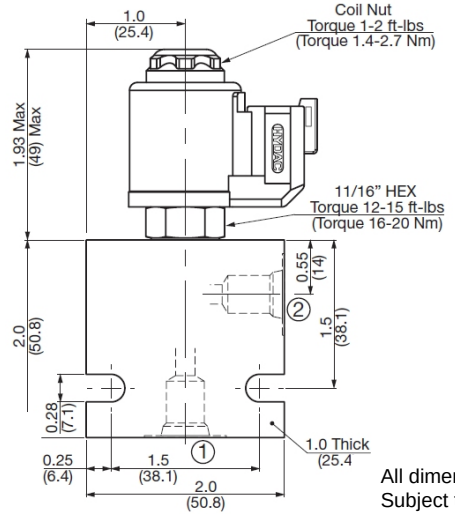
Operating pressure:	max. 350 bar
Nominal flow:	max. 20 l/min
Leakage:	leakage-free, < max. 0,35 cm³/min at nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	Complete valve: 0,165 kg Coil only: 0,088 kg

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:	Energized: approx. 35 ms De-energized: approx. 50 ms

DIMENSIONS

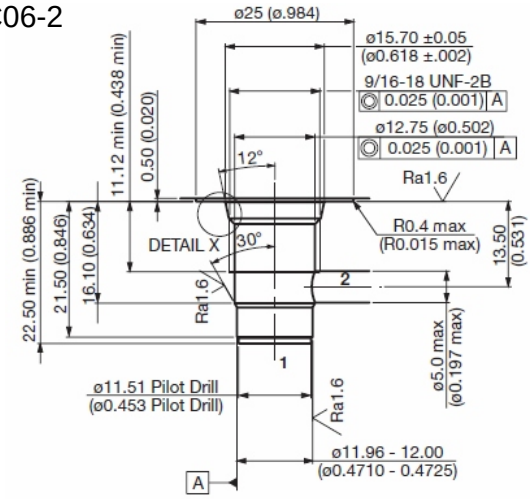


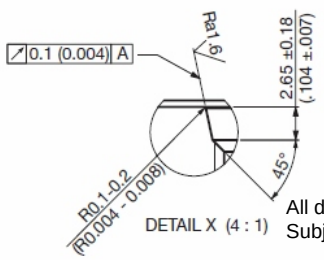


All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

MODEL CODE

WS06Z – 01M – C – N – 24 DN

Basic model
Directional poppet valve, pilot operated

Type
01 = Standard
01M = manual override
30 = with protection strainer around port 2

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WS06Z-01-C-N-0 without coil	2610237

(coil please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

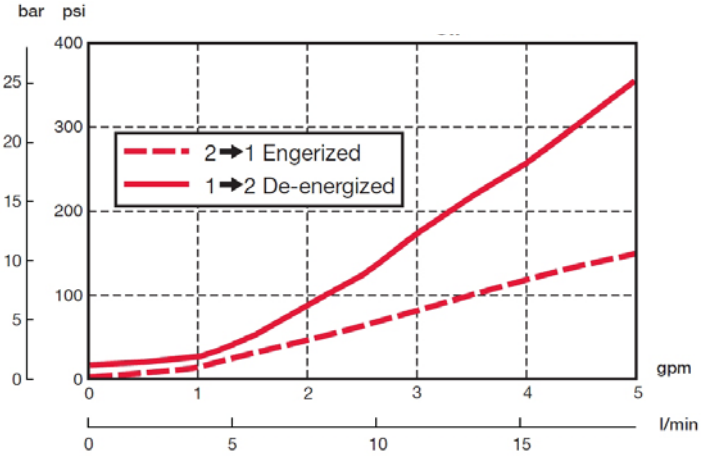
other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C



Annotation
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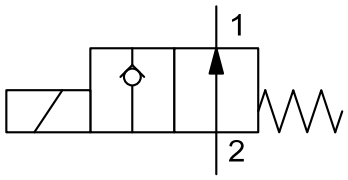
HYDAC INTERNATIONAL

SYMBOL

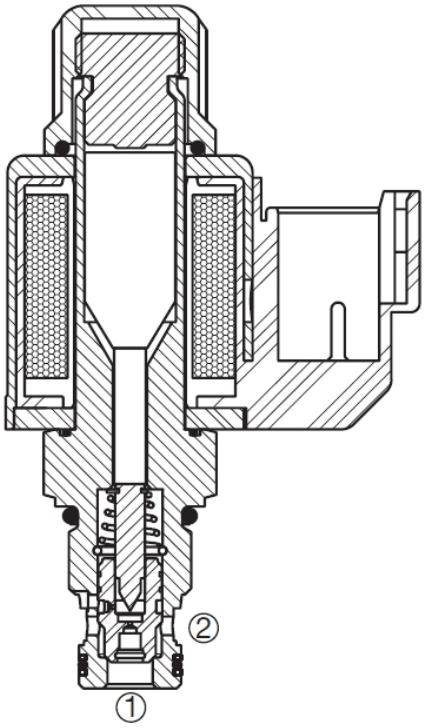


up to 20 l/min
up to 350 bar

2/2 Solenoid Directional Valve Poppet type, pilot operated, normally open Cartridge-Minivalve – 350 bar WS06Y-01

UNF

FUNCTION



In de-energized mode there is flow from port 2 to 1.
If energized, the valve blocks flow from port 2 to 1.
In the opposite direction it opens if the pressure force on den piston is higher than the magnet force (approx. 9 up to 20 bar).

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

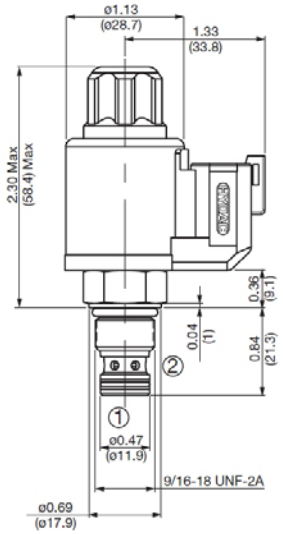
SPECIFICATIONS

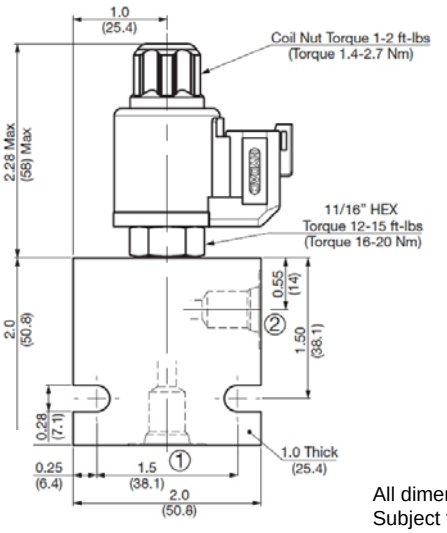
Operating pressure:	max. 350 bar
Nominal flow:	max. 20 l/min
Leakage:	leakage-free, < max. 0,35 cm³/min at nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	Complete valve: 0,165 kg Coil only: 0,088 kg

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:	Energized: approx. 50 ms De-energized: approx. 35 ms

DIMENSIONS

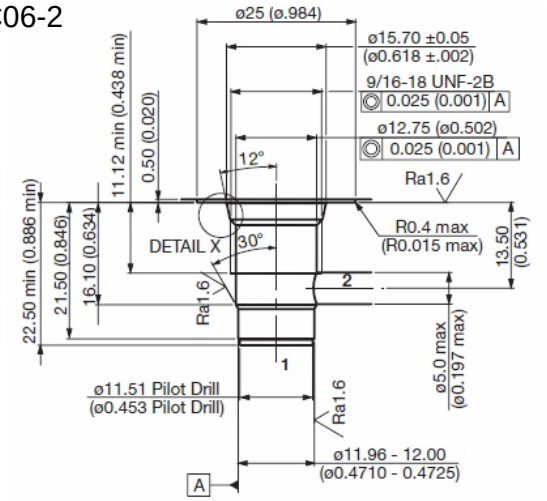


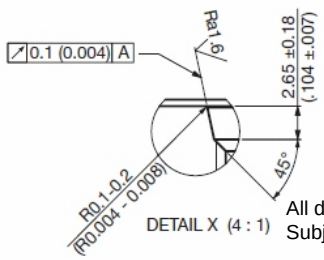


All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

MODEL CODE

WS06Y – 01M – C – N – 24 DN

Basic model
directionalpoppet valve, pilot operated

Type
01 = Standard
01M = manual override
30 = with protection strainer around port 2

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WS06Y-01-C-N-0 without coil	2610209

(coil please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

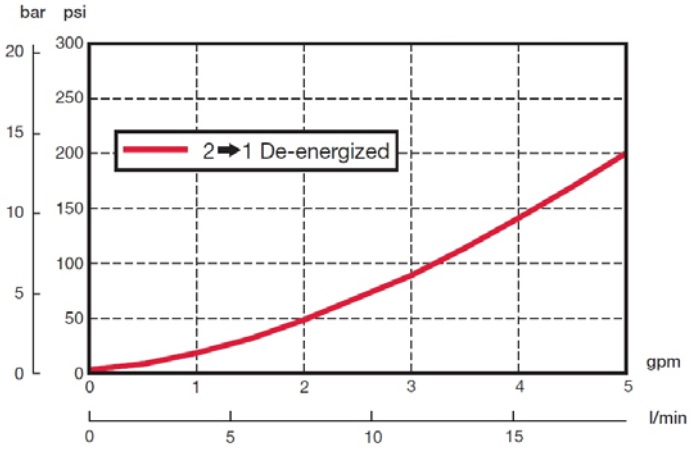
other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C



Annotation
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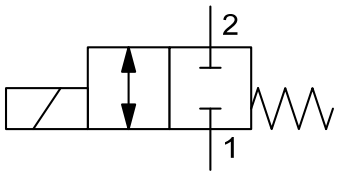
HYDAC INTERNATIONAL

SYMBOL

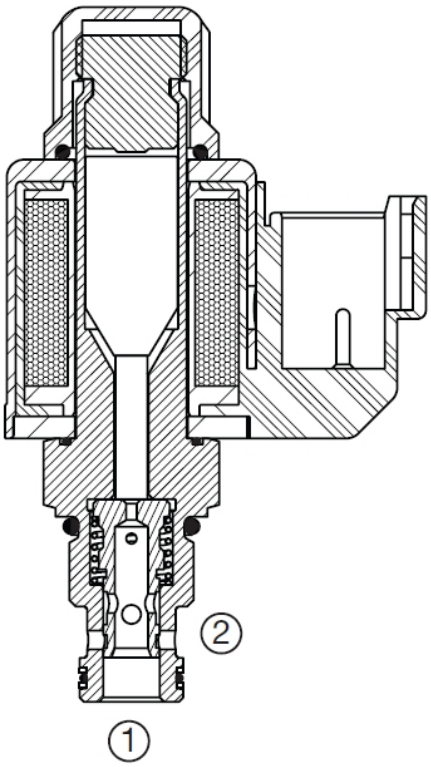


2/2 Solenoid Directional Valve Spool type, direct acting, Cartridge-Minivalve – 350 bar WK06W-01

UNF

up to 10 l/min
up to 350 bar

FUNCTION



In de-energized mode the valve is blocked in both directions.
If energized, the valve opens and allows the flow in both directions.

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

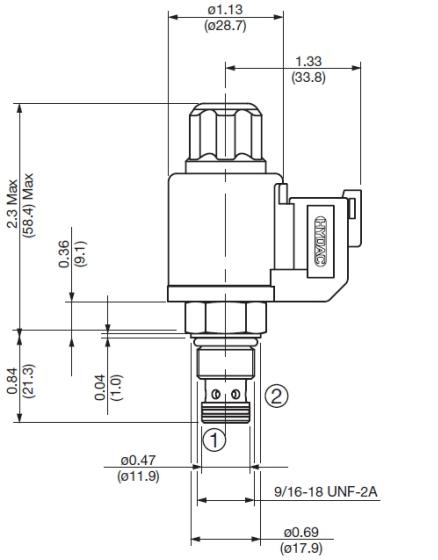
SPECIFICATIONS

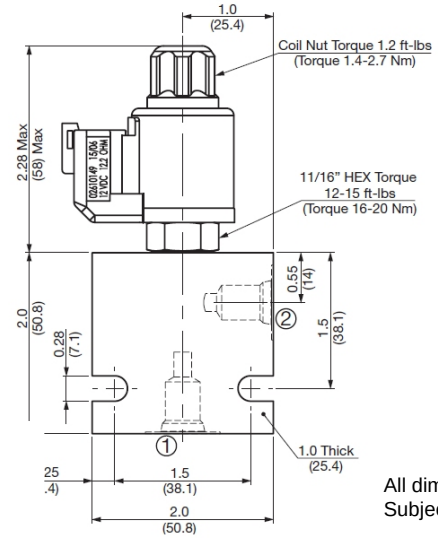
Operating pressure:	max. 350 bar
Nominal flow:	max. 10 l/min
Leakage:	< max. 90 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
MTTFd:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	Complete valve: 0,165 kg Coil only: 0,088 kg

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature

DIMENSIONS

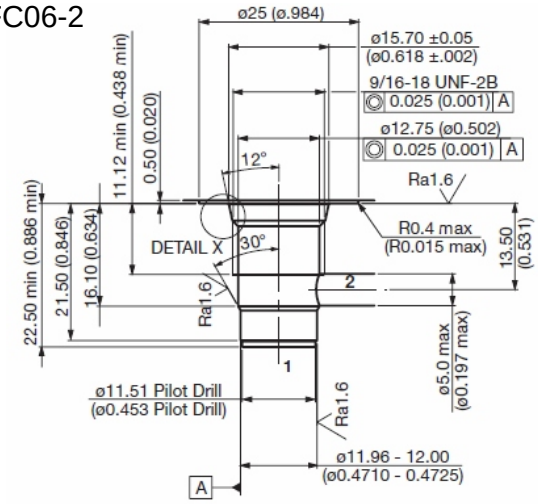


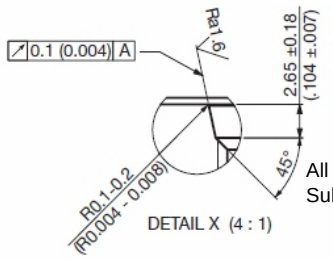


All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

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MODEL CODE

WK06W – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06W-01-C-N-0 without coil	2610182

(coil please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

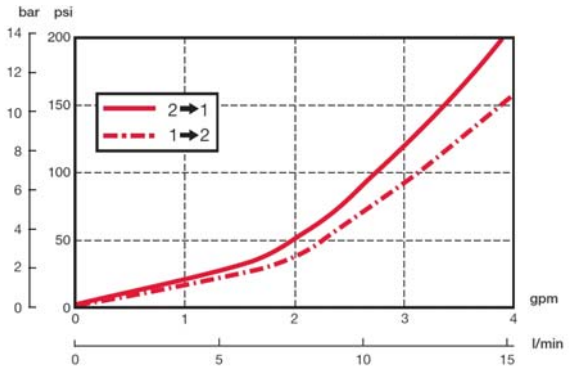
other line bodies on request

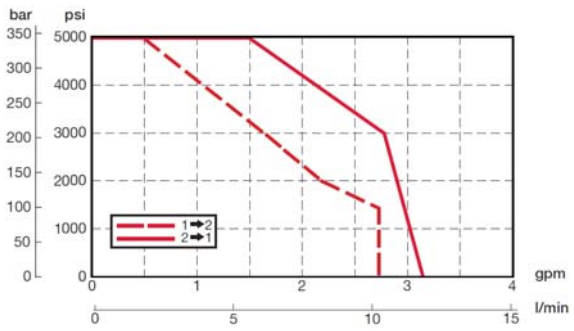
Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

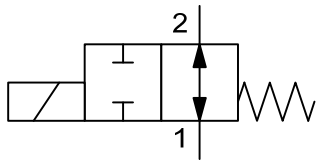
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

SYMBOL

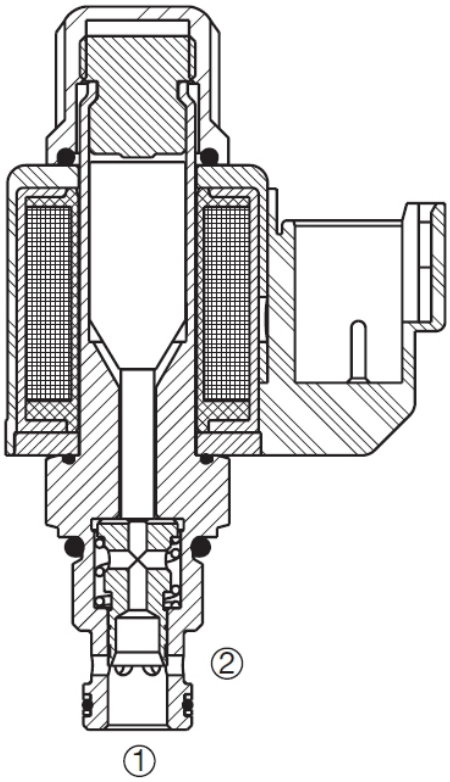


2/2 Solenoid Directional valve Spool type, direct acting, Cartridge-Minivalve – 350 bar WK06V-01

UNF

up to 15 l/min
up to 350 bar

FUNCTION



In de-energized mode the valve is open in both directions.
If energized, the valve closes and blocks the flow in both directions.

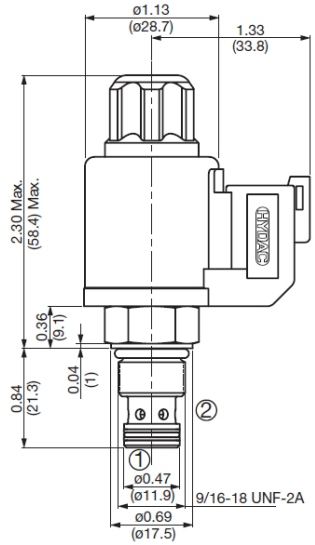
FEATURES

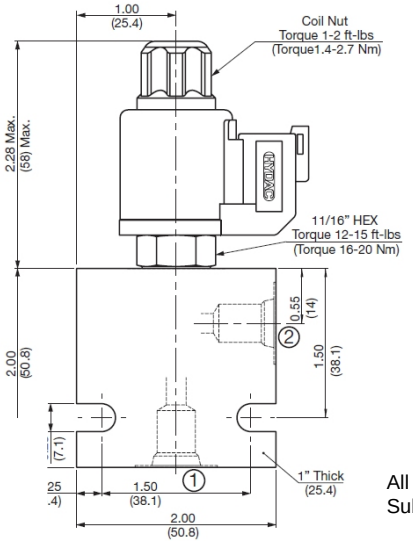
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 15 l/min
Leakage:	< max. 90 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
MTTFd:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	Complete valve: 0,170 kg Coil only: 0,088 kg
Electrical data	
Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:	Energized: approx. 50 ms De-energized: approx. 35 ms

DIMENSIONS

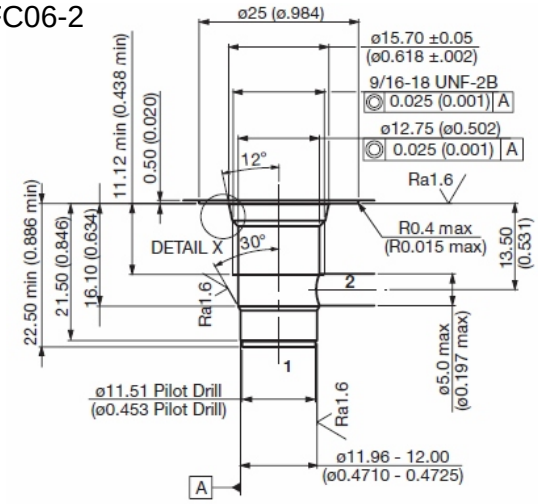


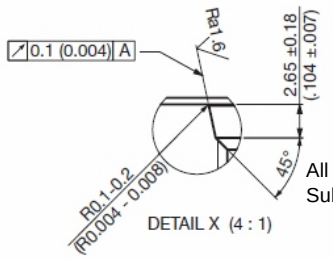


All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-2





All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047

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MODEL CODE

WK06V – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06V-01-C-N-0 without coil	2610222

(coil please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

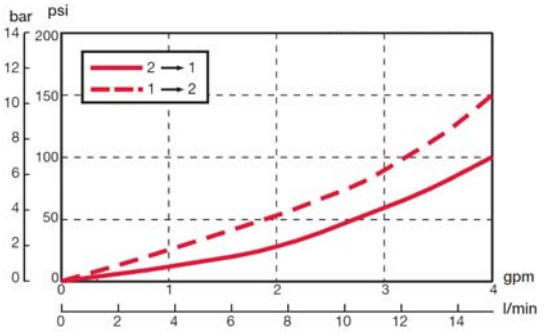
other line bodies on request

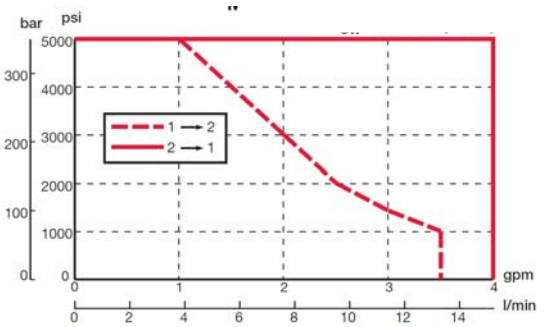
Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

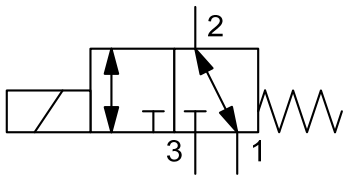
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

SYMBOL

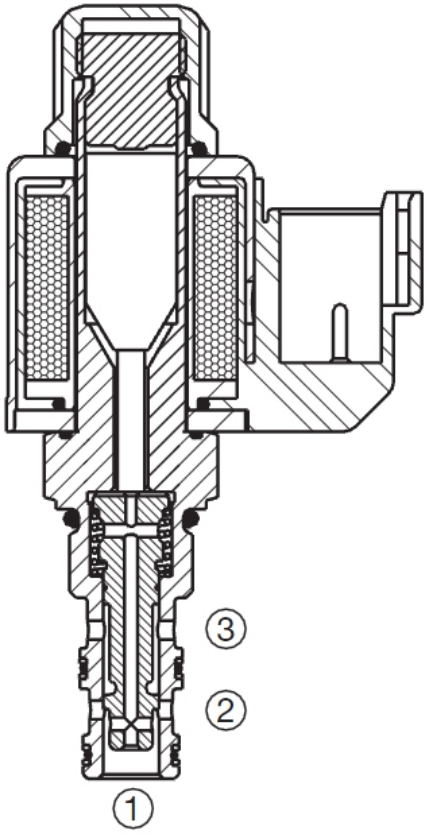


3/2 Solenoid Directional Valve Spool type, direct acting Cartridge-Minivalve – 350 bar WK06C-01

UNF

up to 10 l/min
up to 350 bar

FUNCTION



In de-energized mode there is free flow from port 1 to 2 and in the opposite direction. Port 3 is closed. If energized, the valve allows flow from port 2 to 3 and in the opposite direction. Port 1 is closed.

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

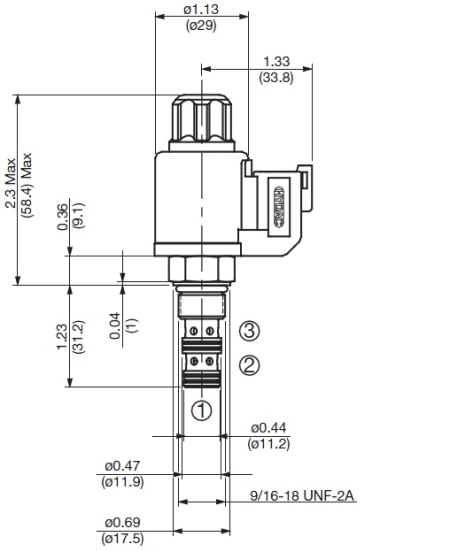
SPECIFICATIONS

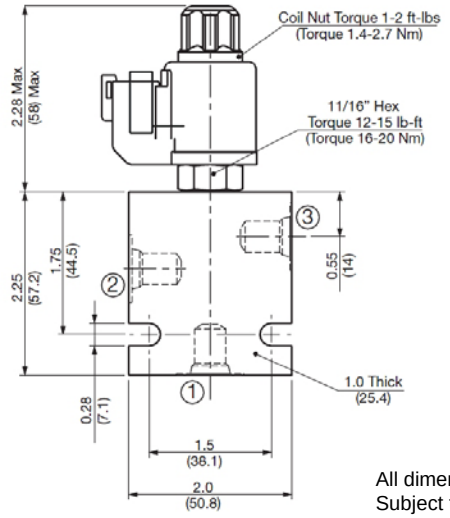
Operating pressure:	max. 350 bar
Nominal flow:	max. 10 l/min
Leakage:	< max. 90 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-3
Weight:	Complete valve: 0,175 kg Coil only: 0,088 kg

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:	Energized: approx. 30 - 60 ms De-energized: approx. 20 - 40 ms

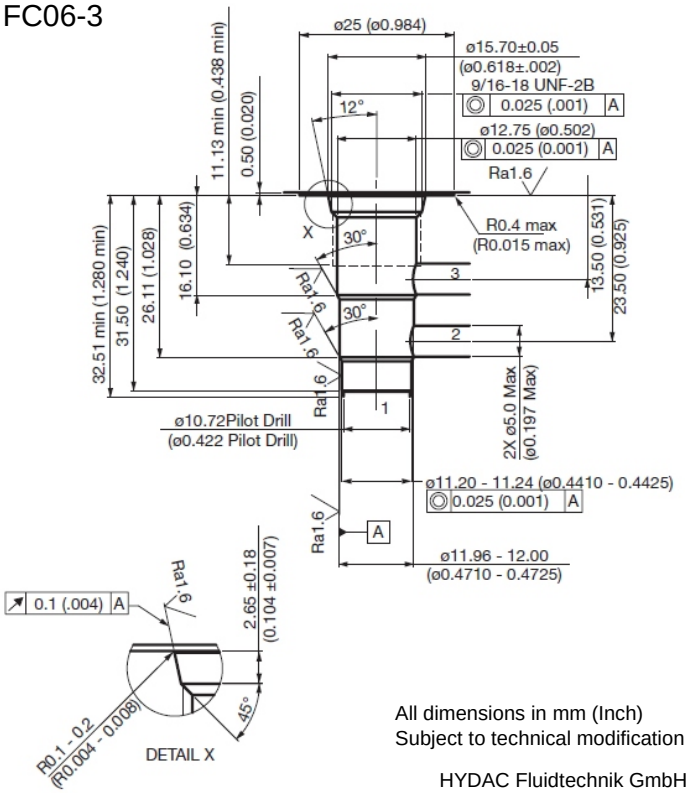
DIMENSIONS





All dimensions in inch (mm)
Subject to technical modification

Cavity
FC06-3



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582050
Countersink	2582051

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MODEL CODE

WK06C – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06C-01-C-N-0 without coil	2610183

(coil please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH063-SB2	3740562	steel, zinc plated	G1/4	420 bar
FH063-AB2	3741286	Alu, anodized	G1/4	245 bar

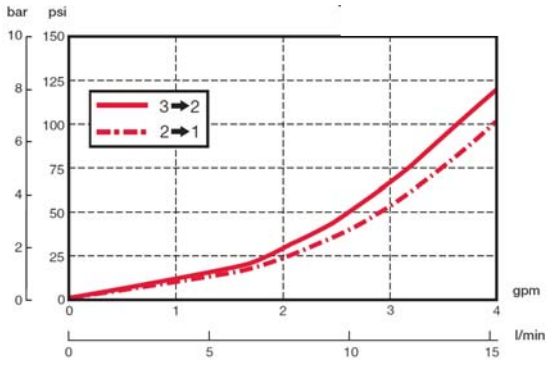
other line bodies on request

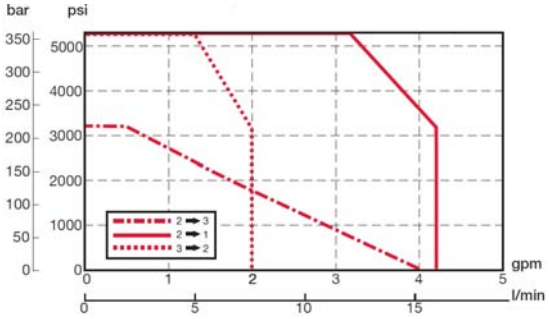
Seal kits

Code	Part No.
Seal kit-NBR	2610186
Seal kit-FKM	2610187

PERFORMANCE

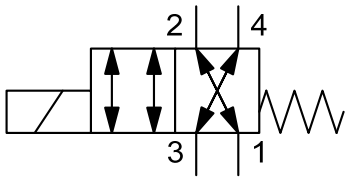
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

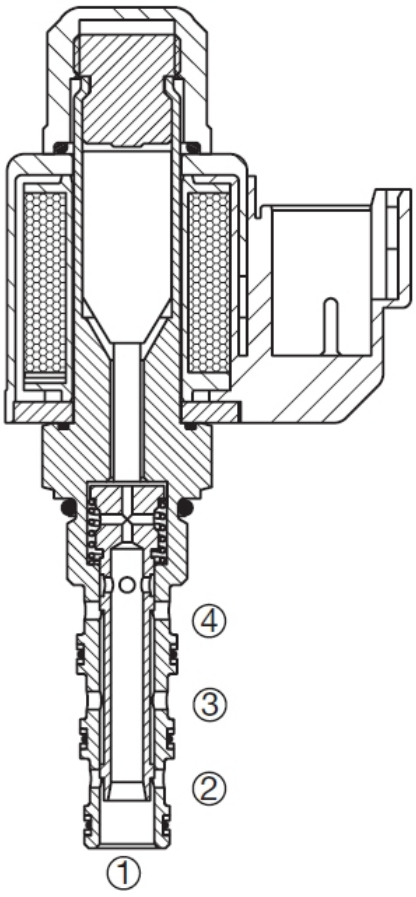
SYMBOL



4/2 Solenoid Directional Valve UNF
Spool type, direct acting
Cartridge-Minivalve – 350 bar
WK06Y-01

up to 10 l/min
up to 350 bar

FUNCTION



In de-energized mode, the valve allows flow from port 1 to 2 and from 3 to 4 and also in the opposite direction. If energized, the valve allows flow from port 1 to 4 and from 3 to 2 and also in the opposite direction.

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

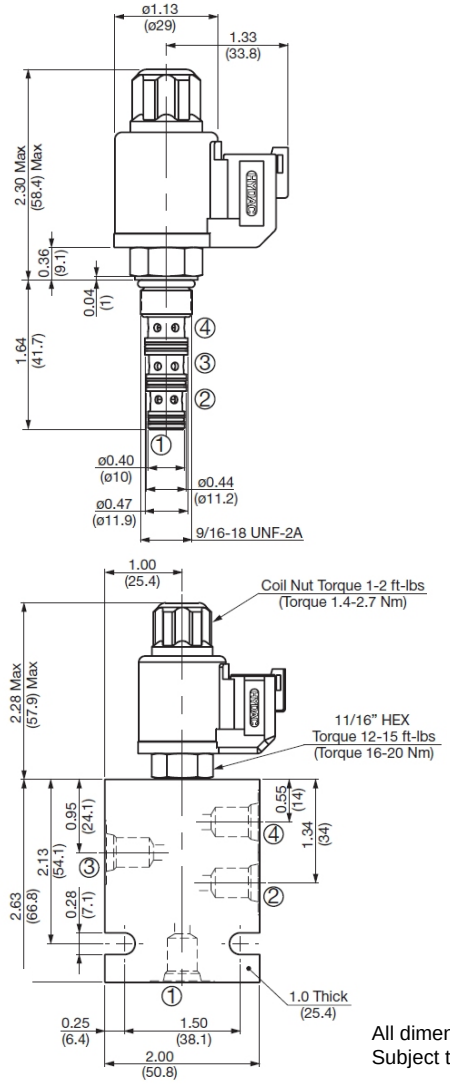
SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 10 l/min
Leakage:	< max. 100 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-4
Weight:	Complete valve: 0,190 kg Coil only: 0,088 kg

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:	Energized: approx. 30 - 60 ms De-energized: approx. 20 - 40 ms

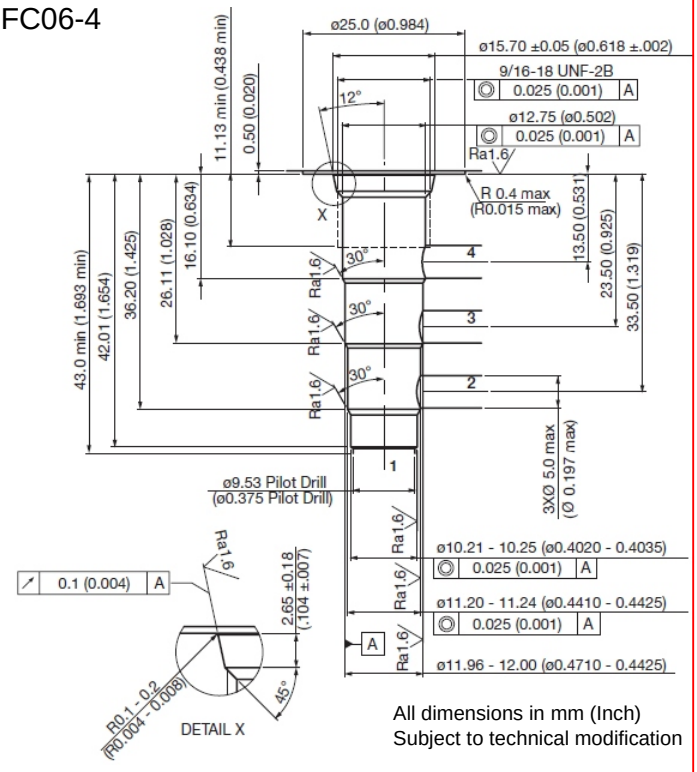
DIMENSIONS



All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-4



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582057
Countersink	2582058

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MODEL CODE

WK06Y – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06Y-01-C-N-0 without coil	2610203

(coil please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH064-SB2	3740589	steel, zinc plated	G1/4	420 bar
FH064-AB2	3741315	Alu, anodized	G1/4	245 bar

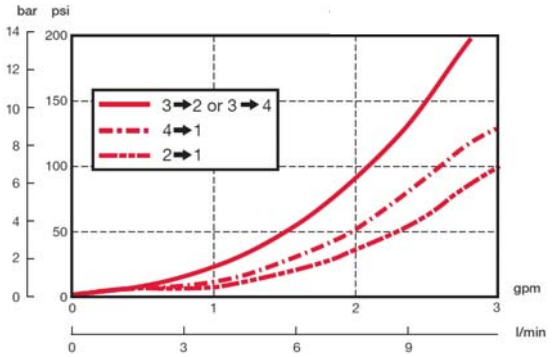
other line bodies on request

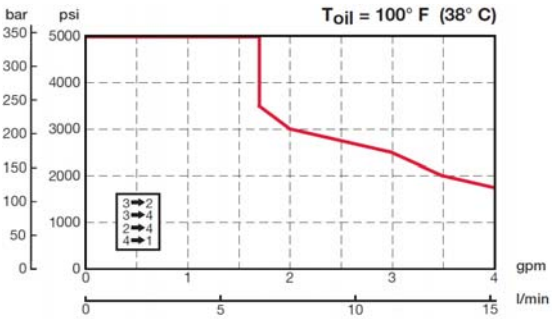
Seal kits

Code	Part No.
Seal kit-NBR	2610188
Seal kit-FKM	2610189

PERFORMANCE

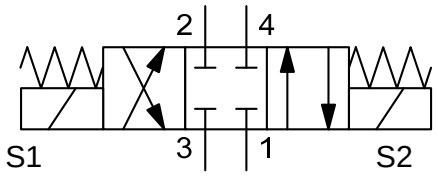
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

SYMBOL

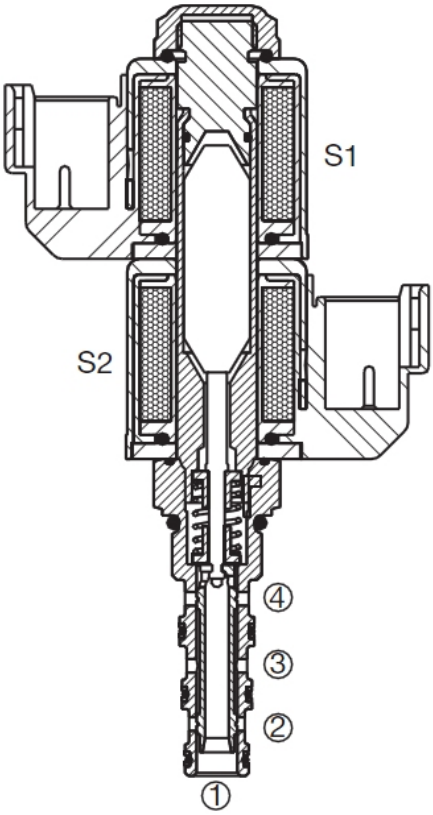


4/3 Solenoid Directional Valve Spool type, direct acting Cartridge-Minivalve – 350 bar WK06E-01

UNF

up to 11 l/min
up to 350 bar

FUNCTION



In de-energized mode all ports are blocked.
If the coil S1 is energized, there is free flow from port 3 to 4 and from 2 to 1.
If the coil S2 is energized, there is flow from port 3 to 2 and from 4 to 1.

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

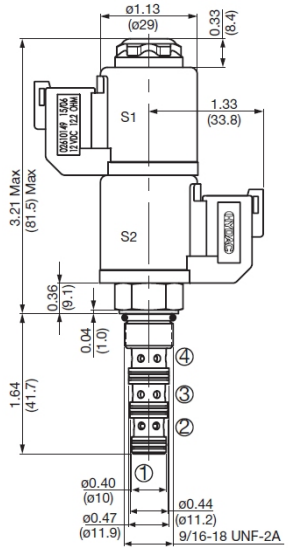
SPECIFICATIONS

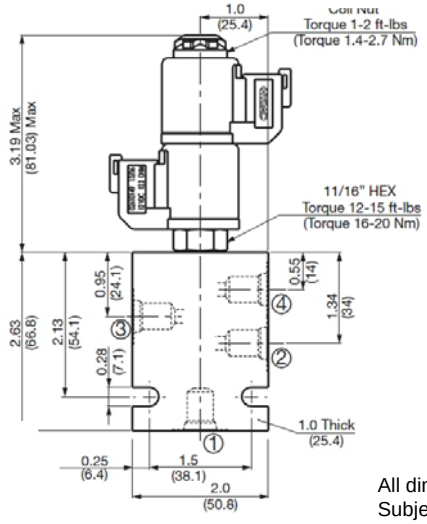
Operating pressure:	max. 350 bar max. 210 bar at Tank (port 1)
Nominal flow:	max. 11 l/min
Leakage:	< max. 100 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-4
Weight:	Complete valve: 0,374 kg Coil only: 0,088 kg (2x)

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:	Energized: approx. 30 - 60 ms De-energized: approx. 20 - 40 ms

DIMENSIONS

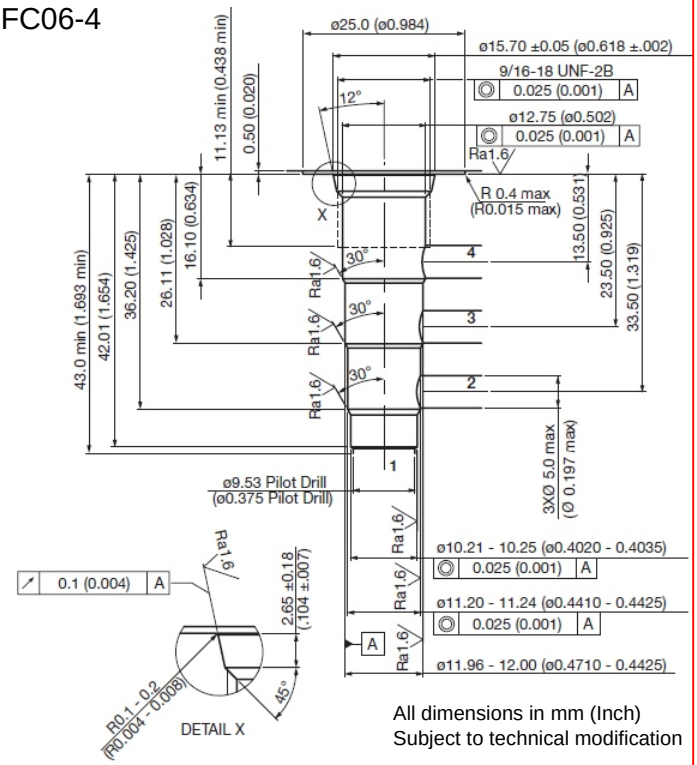




All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-4



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582057
Countersink	2582058

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MODEL CODE

WK06E – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override
01A = lockable manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06E-01-C-N-0 without coil	2610190

(coils please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH064-SB2	3740589	steel, zinc plated	G1/4	420 bar
FH064-AB2	3741315	Alu, anodized	G1/4	245 bar

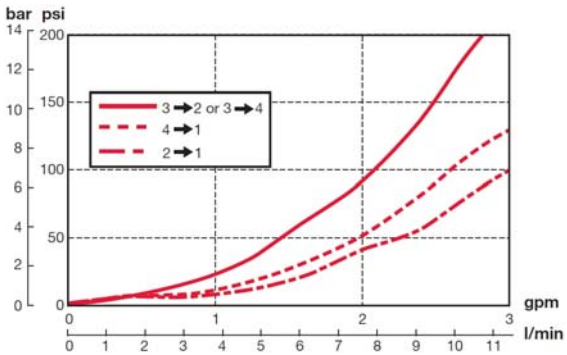
other line bodies on request

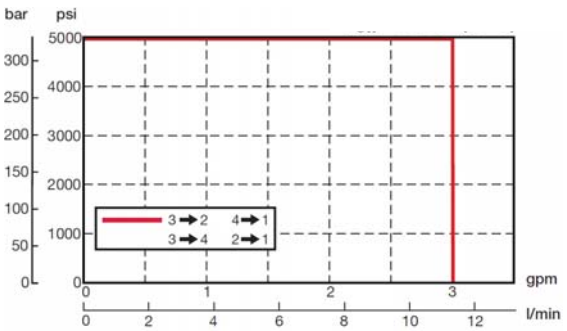
Seal kits

Code	Part No.
Seal kit-NBR	2610188
Seal kit-FKM	2610189

PERFORMANCE

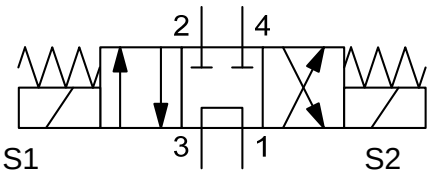
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

SYMBOL

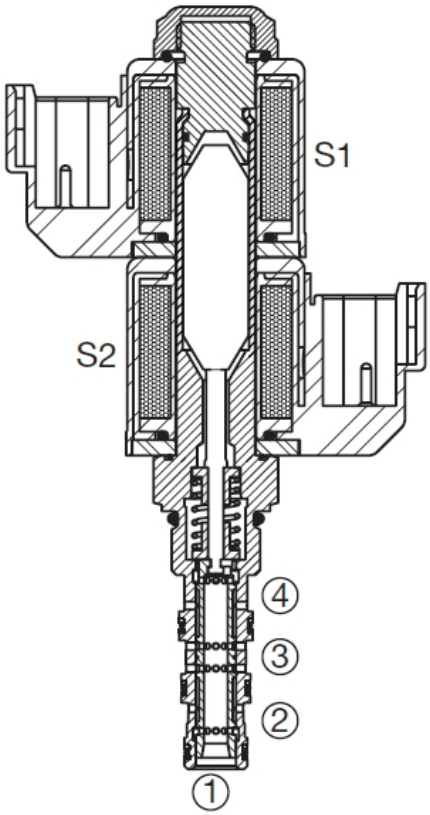


4/3 Solenoid Directional Valve Spool type, direct acting Cartridge-Minivalve – 350 bar WK06G-01

UNF

up to 7 l/min
up to 350 bar

FUNCTION



In de-energized mode the ports 2 and 4 are blocked – whereas there is flow from port 3 to 1 and in opposite direction.
If the coil S1 is energized, there is flow from port 3 to 2 and from 4 to 1 .
If the coil S2 is energized, there is flow from port 3 to 4 and from 2 to 1 .

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

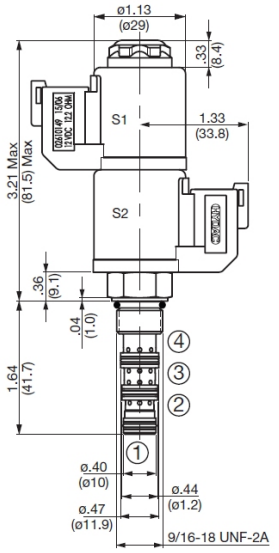
SPECIFICATIONS

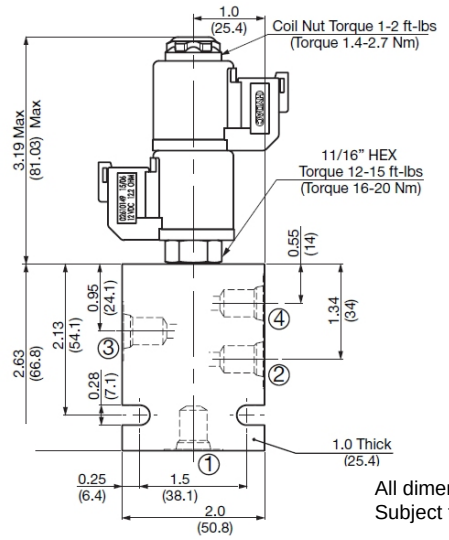
Operating pressure:	max. 350 bar max. 210 bar at Tank (port 1)
Nominal flow:	max. 7 l/min
Leakage:	< max. 100 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-4
Weight:	Complete valve: 0,374 kg Coil only: 0,088 kg (2x)

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature

DIMENSIONS

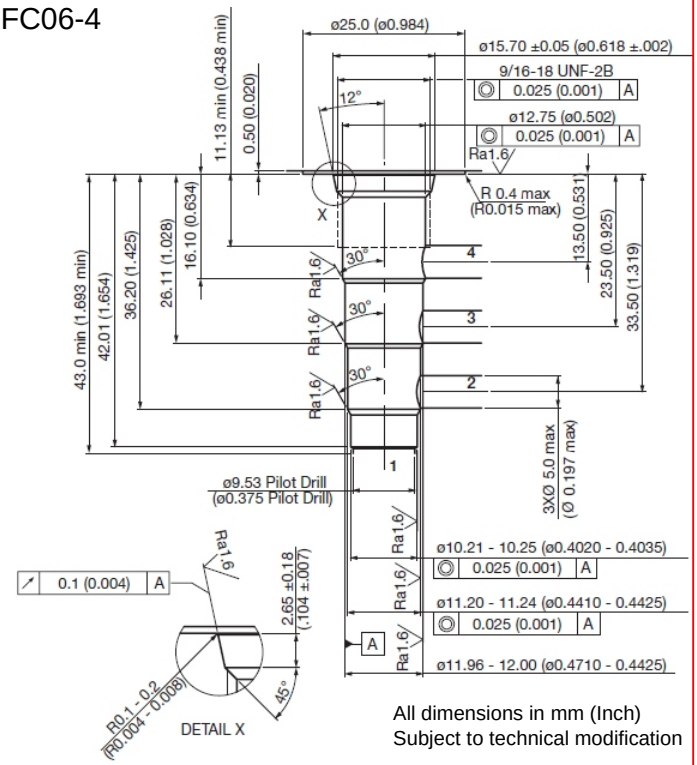




All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-4



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582057
Countersink	2582058

HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509 -0
Fax: 06897 / 509 -598
Email: flutec@hydac.com

MODEL CODE

WK06G – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override
01A = lockable manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06G-01-C-N-0 without coil	2610192

(coils please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH064-SB2	3740589	steel, zinc plated	G1/4	420 bar
FH064-AB2	3741315	Alu, anodized	G1/4	245 bar

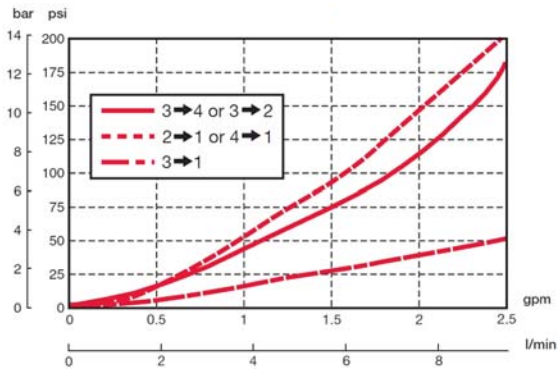
other line bodies on request

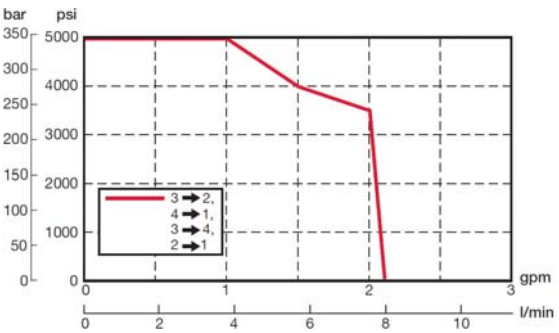
Seal kits

Code	Part No.
Seal kit-NBR	2610188
Seal kit-FKM	2610189

PERFORMANCE

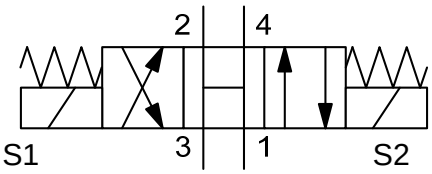
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

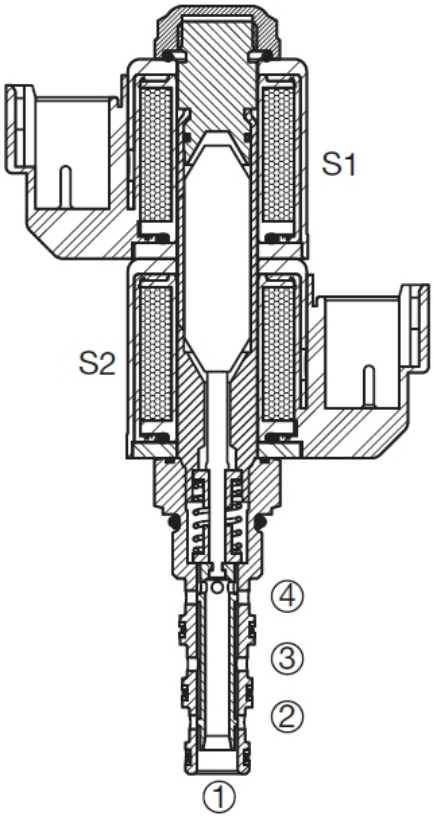
SYMBOL



4/3 Solenoid Directional Valve UNF
Spool type, direct acting
Cartridge-Minivalve – 350 bar
WK06H-01

up to 9 l/min
up to 350 bar

FUNCTION



In de-energized mode all ports are connected.
If the coil S1 is energized, there is flow from port 3 to 4 and from 2 to 1 .
If the coil S2 is energized, there is flow from port 3 to 2 and from 4 to 1 .

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

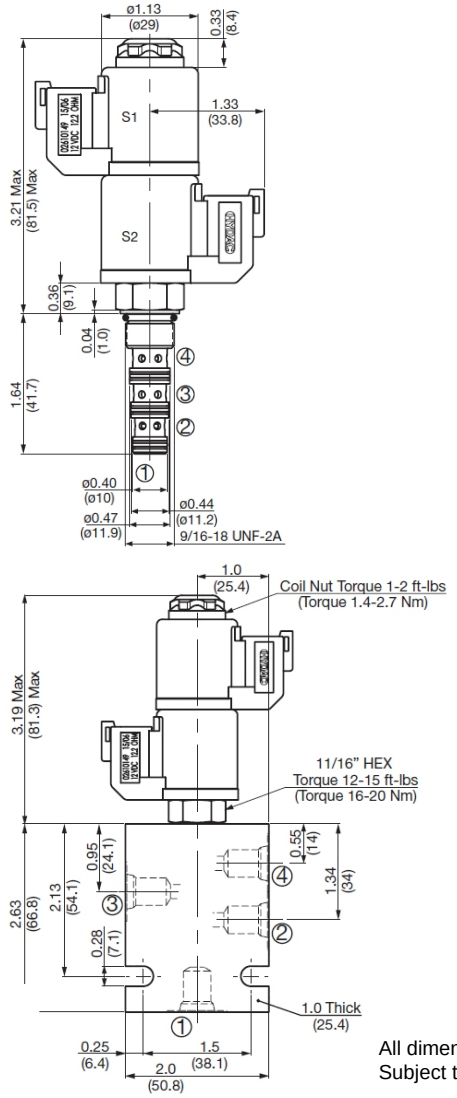
SPECIFICATIONS

Operating pressure:	max. 350 bar max. 210 bar at Tank (port 1)
Nominal flow:	max. 9 l/min
Leakage:	< max. 100 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-4
Weight:	Complete valve: 0,374 kg Coil only: 0,088 kg (2x)

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature

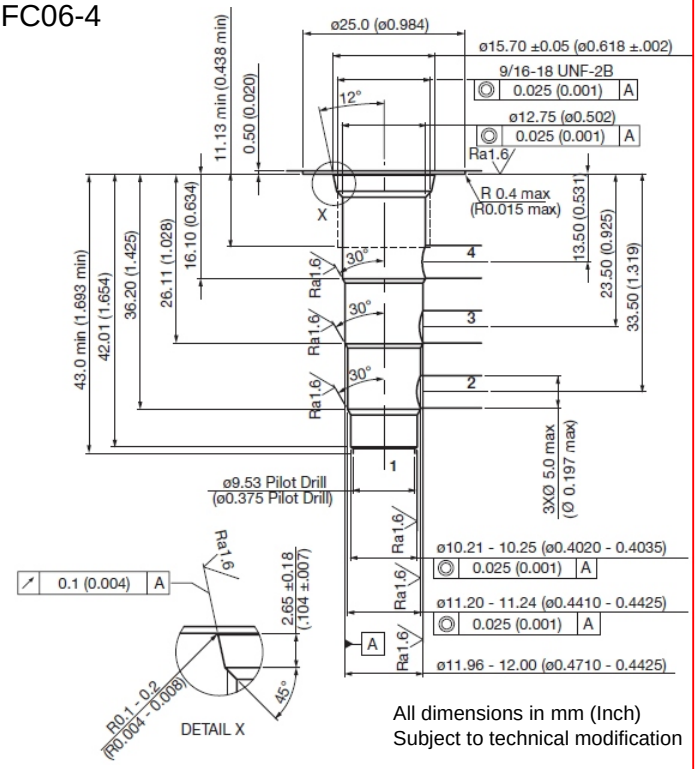
DIMENSIONS



All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-4



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582057
Countersink	2582058

HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509 -0
Fax: 06897 / 509 -598
Email: flutec@hydac.com

MODEL CODE

WK06H – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override
01A = lockable manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06H-01-C-N-0 without coil	2610193

(coils please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH064-SB2	3740589	steel, zinc plated	G1/4	420 bar
FH064-AB2	3741315	Alu, anodized	G1/4	245 bar

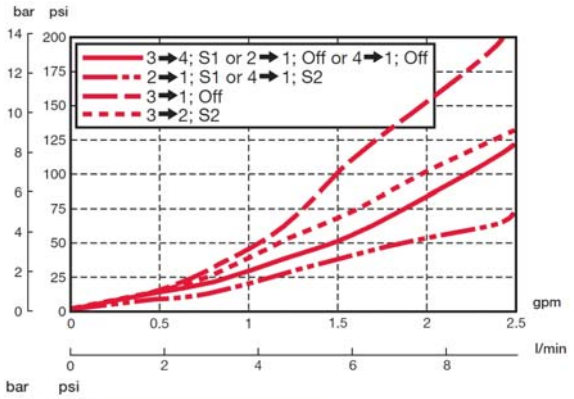
other line bodies on request

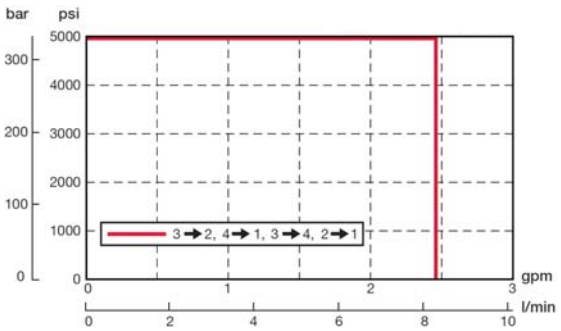
Seal kits

Code	Part No.
Seal kit-NBR	2610188
Seal kit-FKM	2610189

PERFORMANCE

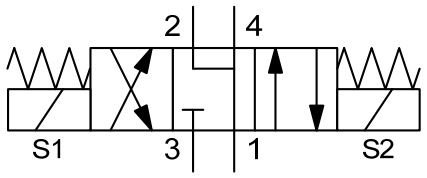
Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL

SYMBOL

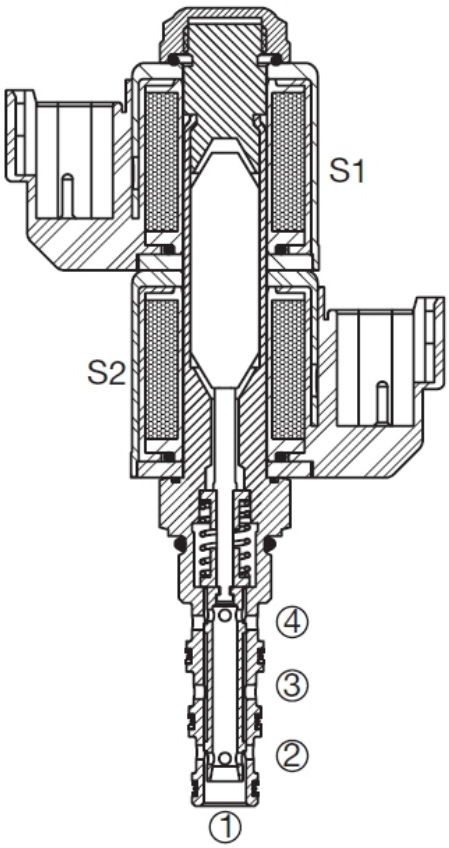


4/3 Solenoid Directional Valve Spool type, direct acting Cartridge-Minivalve – 350 bar WK06J-01

UNF

up to 11 l/min
up to 350 bar

FUNCTION



In de-energized mode the ports 2, 4 and 1 are connected, while port 3 is blocked.
If the coil S1 is energized, there is flow through the valve from port 3 to 4 and from 2 to 1.
If the coil S2 is energized, there is flow from port 3 to 2 and from 4 to 1.

FEATURES

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

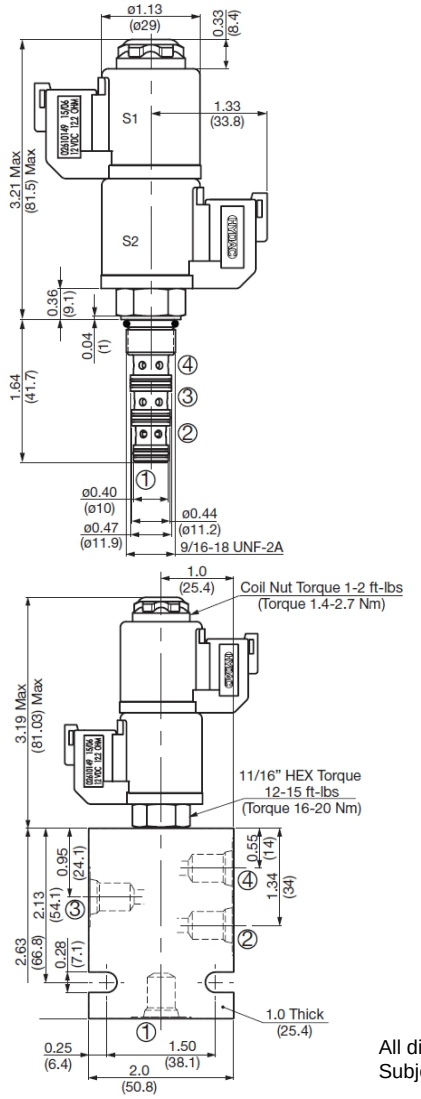
SPECIFICATIONS

Operating pressure:	max. 350 bar max. 210 bar at Tank (port 1)
Nominal flow:	max. 11 l/min
Leakage:	< max. 100 cm³/min at 250 bar and 34 mm²/s
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Piston: hardened and ground steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-4
Weight:	Complete valve: 0,374 kg Coil only: 0,088 kg (2x)

Electrical data

Type of voltage:	DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:	984 mA at 12 V DC 492 mA at 24 V DC
Voltage tolerance:	+/- 15% of Coil voltage
Coil duty rating:	100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature

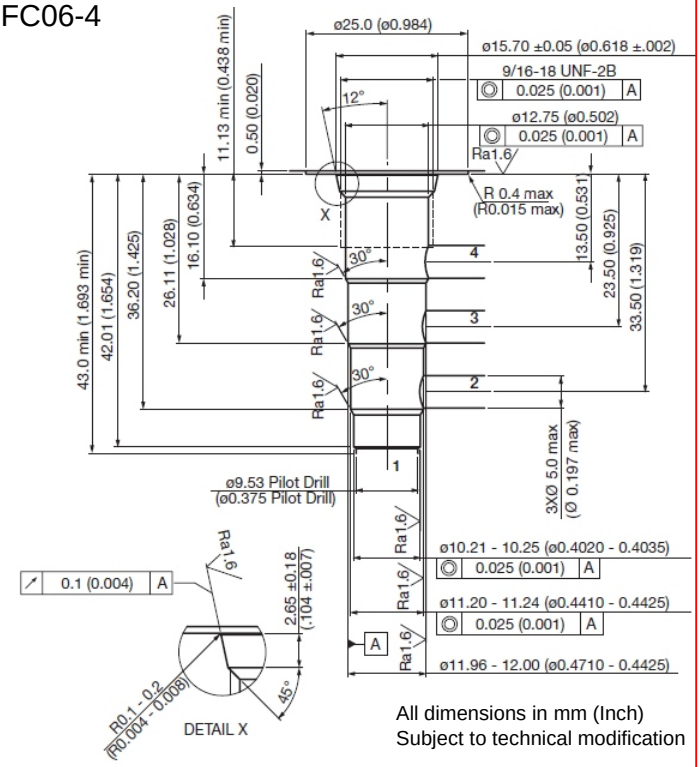
DIMENSIONS



All dimensions in inch (mm)
Subject to technical modification

Cavity

FC06-4



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582057
Countersink	2582058

HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509 -0
Fax: 06897 / 509 -598
Email: flutec@hydac.com

MODEL CODE

WK06J – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override
01A = lockable manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models

Code	Part No.
WK06J-01-C-N-0 without coil	2610191

(coils please choose from brochure D 5.155.0)
Other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH064-SB2	3740589	steel, zinc plated	G1/4	420 bar
FH064-AB2	3741315	Alu, anodized	G1/4	245 bar

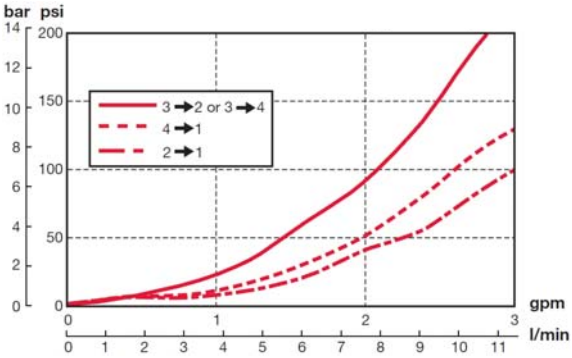
other line bodies on request

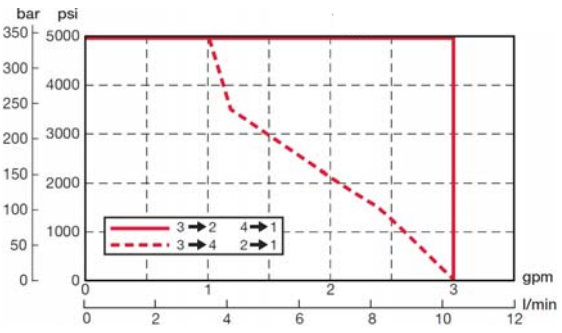
Seal kits

Code	Part No.
Seal kit-NBR	2610188
Seal kit-FKM	2610189

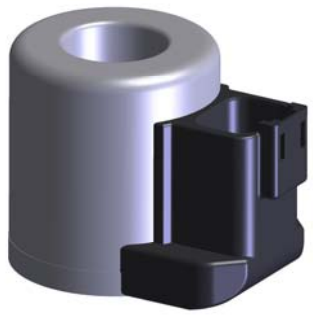
PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C





HYDAC INTERNATIONAL



Coils for Minivalves

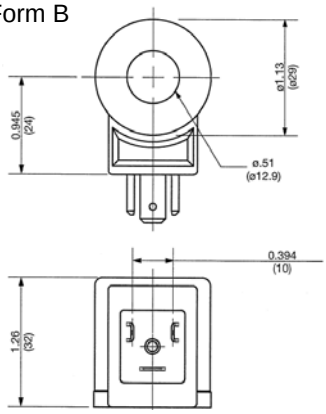
(for solenoid operated directional valves)

Type 32-1329

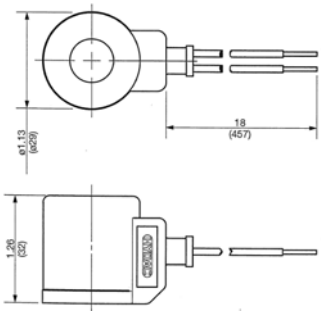
for following valves:

WS06Z
WK06W
WK06Y
WK06G
WK06J
WS06Y
WK06C
WK06E
WK06H

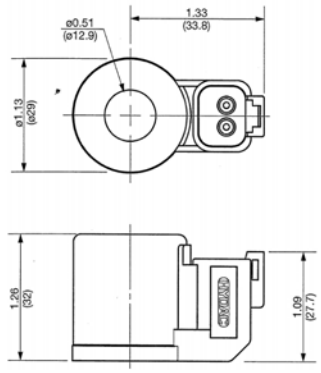
Connector type G
DIN Plug to EN175-301-803
Form B



Connector type L
2 leadwires, 450mm long



Connector type N
Deutsch Plug, 2-poles (Type DT04-2P)



FEATURES-

- **Maximal force at minimal space requirement,**
  by perfect wound coil - maximal copper : avoids damages of the insulation of the wires (breakdown by short-circuits)

- **Fully closed coil**
  internal coil sealing avoids humidity and short-circuits in the winding

- **Designed for 100% coil duty rating**
  at Imax and ambient temperatures from –20° up to +60°C

- **Small energy consumption**
  by optimal design of force – energy ratio

- **High mechanical resistance,**
  by zinc plated steel cover

- **High thermal stability,**
  to U.L. class N (180°C)

- **Standardized 3 different electrical connectors with IP ratings IP65, IP67 and IP6K9K**
  DIN/EN Plug (G) IP65 Form B, leadwires (L) IP65/IP67//IP6K9K,
  Deutsch Plug (N) IP65/IP67/IP6K9K
  others on request

- **Mounting direction optional,**
  by symmetrical coil design

- **Coil dimension = typification**
  Type 32-1329 = 32mm high (13 mm inside Ø, 29 mm outside Ø)

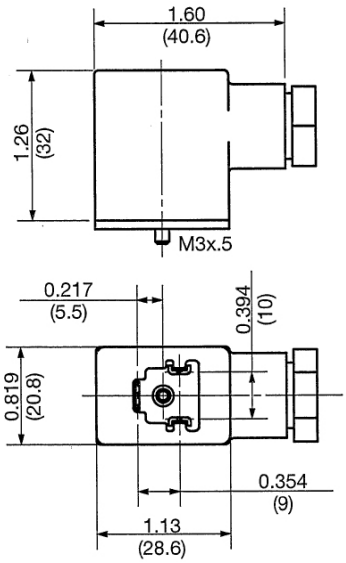
- **Class UL 583 permitted coils available on demand**

SPECIFICATIONS

Coil duty rating:	100% continuous up to max. 115% of Coil voltage at max. 60° C ambient temperature
Max. permitted temperature at coil:	160° C
Power intake:	12 W at Imax and 20° C coil temperature
Windings:	to U.L. class N (180°C)
Outer shell:	steel, zinc plated
Plug socket:	Polyamide, black

(All data are valid for a coil mounted on valve)

Description
In general the coil is produced as DC coil.



DIN plug according to EN 175-803
Form B for:
Connection to DC power
Part. No. 2600570

Connection to AC power
Part. No. 2600582
with integrated rectifier

MODEL CODE

Coil 12 DG01 – 32 -1329

Basic model

Coil voltage
12 V DC
24 V DC
105 V DC (Only Connector type DG)
205 V DC (Only Connector type DG) (at AC voltage
Plug with suppressor diode necessary Mat. 2600582)

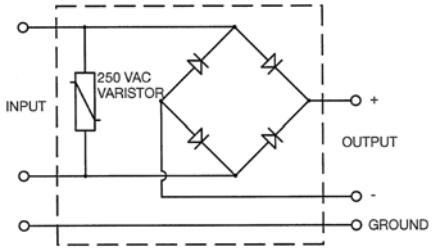
Type of voltage
D = DC voltage DC, directional valve

Coil connectors
G = Plug to EN175301-803 Form B, IP rating IP65
L = 2 leadwires, 0.75mm², 450mm (18“) long
IP rating IP65 /IP67/IP6K9K
N = Deutsch Plug, 2-poles, (DT04-2P) IP rating IP65/IP67/IP6K9K
Other coil connectors on request

Variation (depending on connector)
omission = Standard
01, 02... = e. g. suppressor diode, different cable lengths, etc...
others on request

Typification
32-1329 = main measures (Height, inner diameter, outer diameter)

The model code only serves for your information, available products see chart.



Codes and corresponding Part No's.

Nominal voltage (Volt)	Coil power (Watt)	Resis-tance (Ohm)	Nominal current (Amp.)		Part No's for connector DIN (G)	leadwires (L)	Deutsch (N)
12 V DC	12	12,2	0,98		2610160	2610151	2610149
				with suppressor diode	2610268	2610267	2610210
24 V DC	12	48,7	0,49		2610161	2610162	2610150
				with suppressor diode	2610269	2610266	2610265
115 V AC*	12	980	0,11		2610156*	--	--
230 V AC*	12	3700	0,06		2610159*	--	--

•If using AC voltage a plug (Part no. 2600582) with rectifier is necessary
Other connectors on request.

Annotation
The technical information in this brochure are relating to the operating conditions and applications.
At deviant applications and/or operating conditions please contact
the technical dept.
Technical information are subject to technical modifications.

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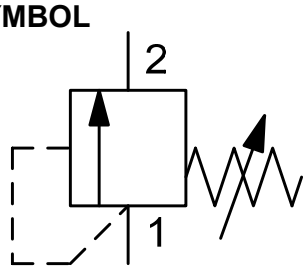
HYDAC INTERNATIONAL

Pressure Relief Valve
Ball type, direct acting
Cartridge-Minivalve – 350 bar
DB06A-01

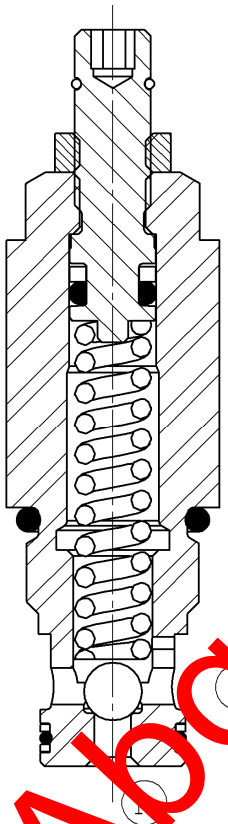
UNF

SYMBOL



up to 15 l/min
up to 350 bar

FUNCTION



The Pressure relief valve DB06A is a direct acting, spring loaded ball valve. Its job is to limit the pressure in the system. The spring acts with a certain force on the ball and presses it on the valve seat. On the opposite side the system pressure works at port 1. If the hydraulic force is lower than the spring pressure the valve remains closed. Only if the force is higher, the valve opens and the flow will be let to port 2 (tank). If the system pressure is equal to the spring pressure the valve closes again.
Attention: Pressure at port 2 increases the opening pressure! If ports are interchanged or the pressure adjustment is higher than the operating pressure, the function of the valve is invalid.

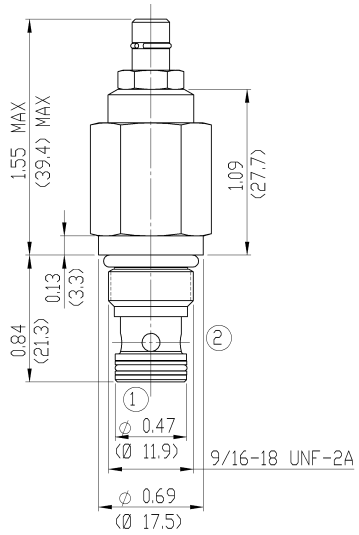
FEATURES

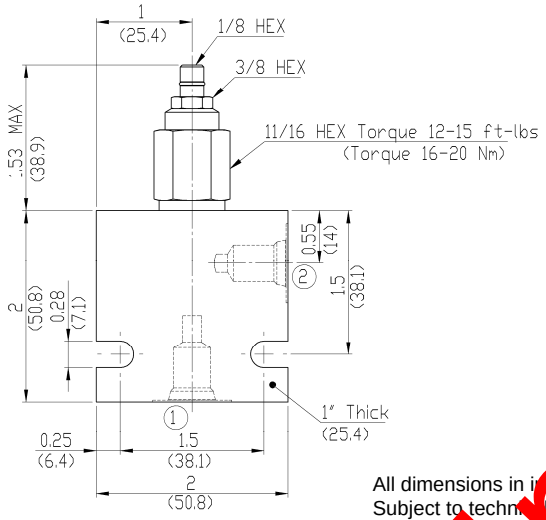
- All exposed surfaces corrosion proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Quick response
- Adjustable under full system pressure
- Adjustable across the entire pressure range
- Various pressure ranges up to 350 bar
- Foreseen for the maximal pressure protection of the system

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 15 l/min
Pressure ranges:	0 up to 125 bar 0 up to 210 bar 35 up to 350 bar
Leakage:	leakage-free, < max. 0,35 cm³/min at 75% nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Ball: hardened steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-2
Weight:	0,068 kg

DIMENSIONS

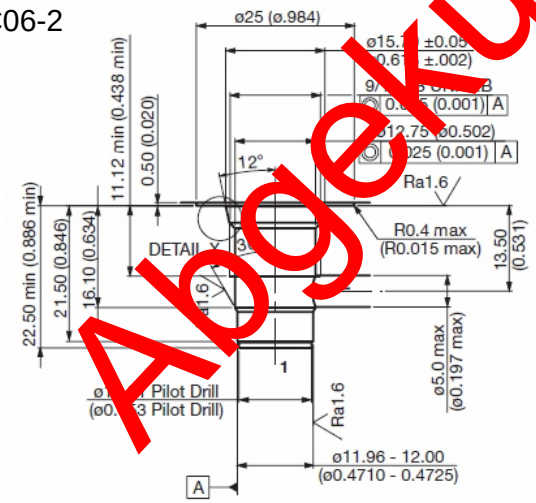


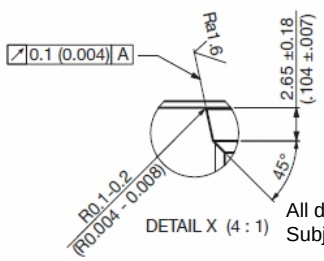


All dimensions in inch (mm)
Subject to technical modification

CAVITY

FC06-2

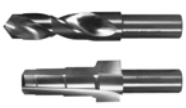




All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582046
Countersink	2582047



MODEL CODE

DB06A – 01 – C – N – 300 V 100

Basic model
Pressure relief valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Pressure range
180 = 0 up to 125 bar (1800PSI)
300 = 0 up to 210 bar (3000PSI)
500 = 35 up to 350 bar (5000PSI)

Adjustment option
V = adjustable by t[illegible]

Setting
omission = [illegible]% of max. Pressure
100 = factory preset, pressure in PSI (/10)
Other pressures on request

Standard models

Name	Part No.
DB06A-01-C-N-180V	2610428
DB06A-01-C-N-300V	2610235
DB06A-01-C-N-500V	2610155

Other types on request

Line bodies

Code	Part No.	Material	Ports	Pressure
FH062-SB2	3740528	steel, zinc plated	G1/4	420 bar
FH062-AB2	3741297	Alu, anodized	G1/4	245 bar

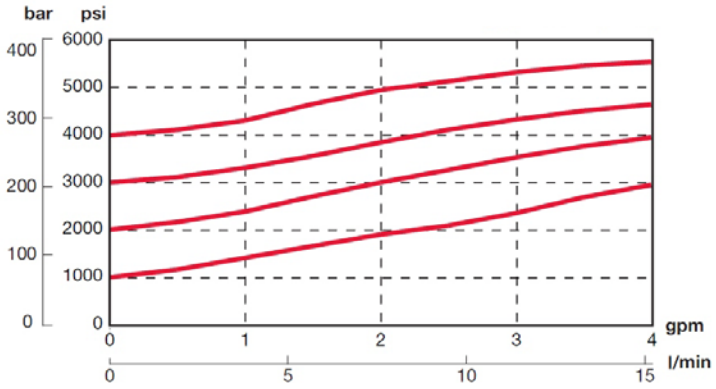
other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610184
Seal kit-FKM	2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C



Annotation
The technical information in this brochure are relating to the operating conditions and applications.
At deviant applications and/or operating conditions please contact the technical dept.
Technical information are subject to technical modifications.

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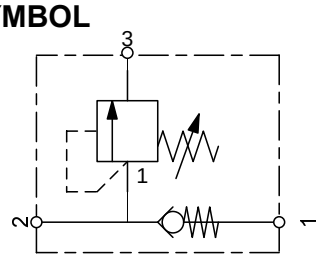
HYDAC INTERNATIONAL

Check Valve
Ball type
with pressure relief function
Cartridge-Minivalve – 350 bar
RV06B-01

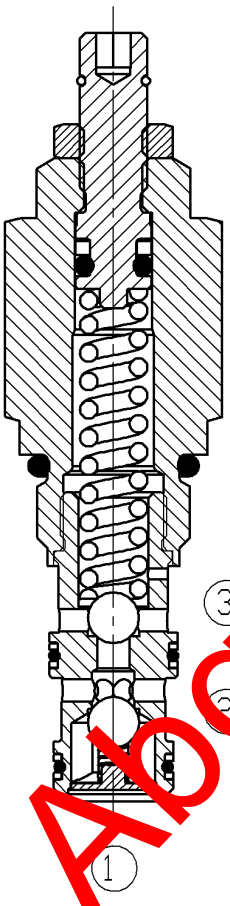
UNF

SYMBOL



up to 15 l/min
up to 350 bar

FUNCTION



The check valve RV06B is a direct acting, spring loaded ball valve with integrated pressure relief valve.
If there is no flow the spring holds the ball in closed position and blocks therefore flow from port 1 to 2. The check valve opens, if the pressure at port 2 is higher than the pressure at port 1 including the spring force. If the pressures rises in the inlet pipe over the pre-adjusted pressure the relief valve opens to tank. Any pressure at port 3 is additive to the relief pressure setting.

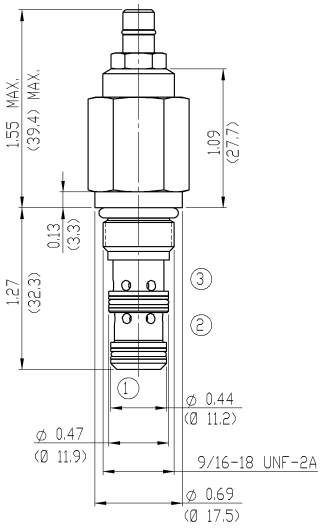
FEATURES

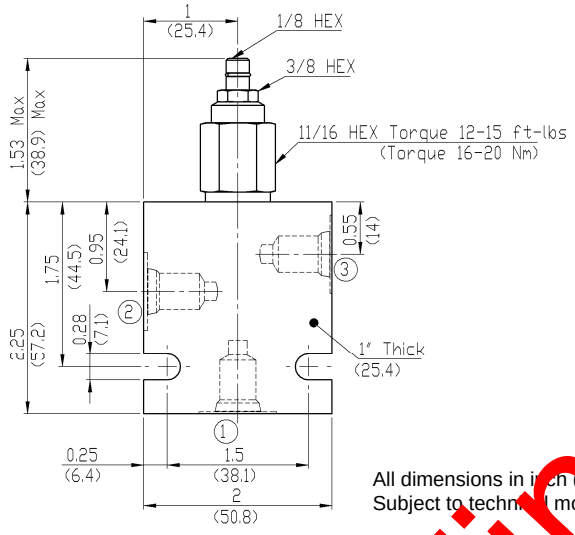
- All exposed surfaces corrosion proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Combination of two functions in one valve
- Pressure ranges up to 350 bar
- adjustable under full pressure
- fast closing
- protecting the system and the pump before pressure peaks

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 15 l/min
Pressure ranges (DB):	0 up to 125 bar 0 up to 210 bar 0 up to 350 bar
Cracking pressure (Check function):	0,35 bar
Leakage:	leakage-free, < max. 0,35 cm³/min at 75% nominal pressure
Temperature range of operating fluid:	Min. – 30°C up to max. +100° C
Ambient temperature range:	Min. – 30°C up to max. + 60° C
Fluid:	Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:	min. 7,4 mm²/s up to max. 420 mm²/s
Filtration:	Class 21 / 19 /16 according to ISO 4406 or cleaner
Installation:	no orientation restrictions
Materials:	Valve body: steel with hardened work surfaces Ball: hardened steel Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C) Back-up rings: TPE-E
Cavity:	FC06-3
Weight:	0,027 kg

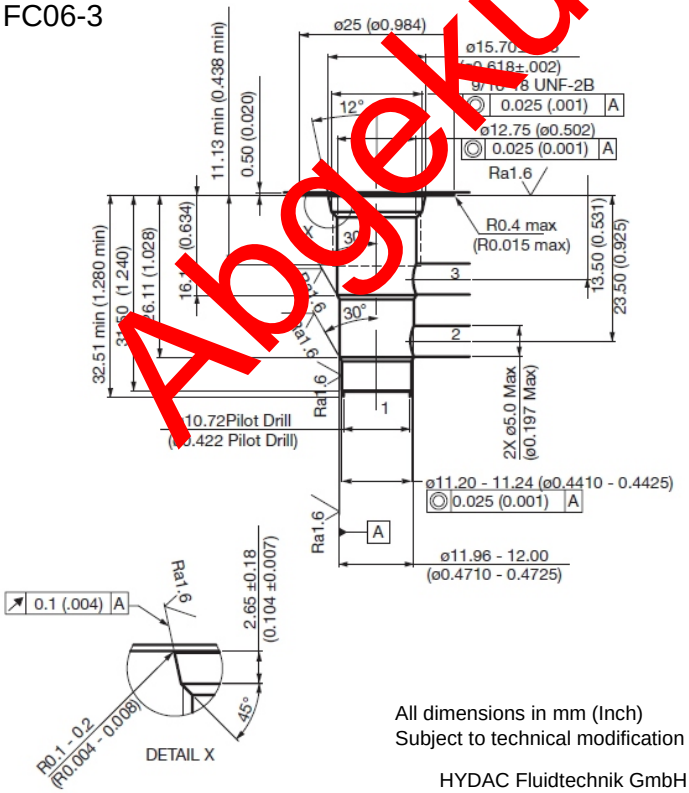
DIMENSIONS





All dimensions in inch (mm)
Subject to technical modification

Cavity
FC06-3



All dimensions in mm (Inch)
Subject to technical modification

Tools

Code	Part No.
Twist drill	2582050
Countersink	2582051

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MODEL CODE

RV06B – 01 – C – N – 300 V 100

Basic model
Check valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Pressure ranges
180 = 0 up to 125 bar (3000 PSI)
300 = 0 up to 210 bar (3000 PSI)
500 = 0 up to 350 bar (5000 PSI)

Adjustment option
V = adjustable by tool

Setting
none = 50% of max. pressure
100 = 69 bar (1000 PSI) – factory preset pressure

Standard models

Name	Part No.
RV06B-01-C-N-300V	2610236
RV06B-01-C-N-500V	2610164

other types on request

***Line bodies**

Code	Part No.	Material	Ports	Pressure
FH063-SB2	3740562	steel, zinc plated	G1/4	420 bar
FH063-AB2	3741286	Alu, anodized	G1/4	245 bar

other line bodies on request

Seal kits

Code	Part No.
Seal kit-NBR	2610186
Seal kit-FKM	2610187

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C