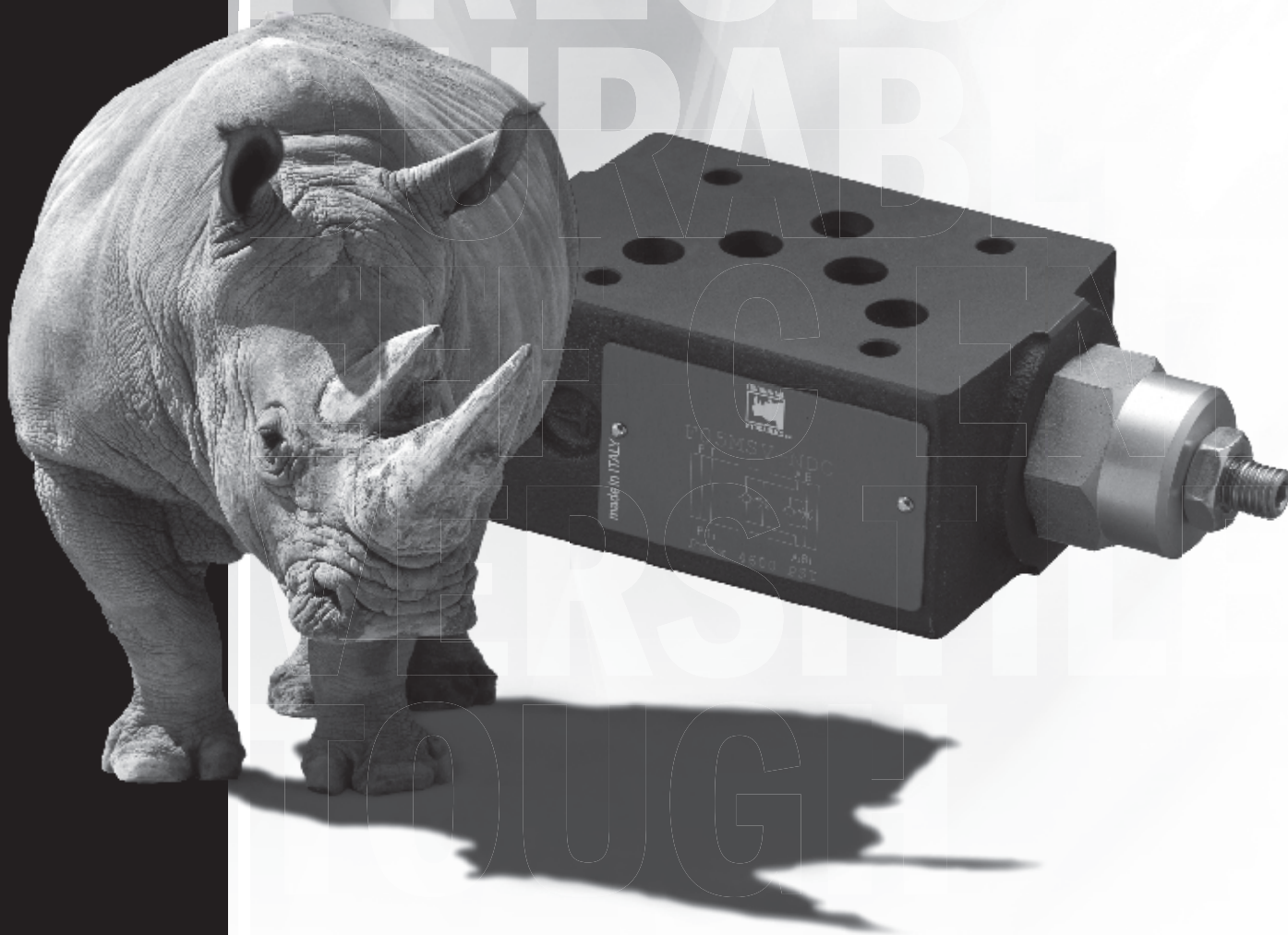




CONTINENTAL HYDRAULICS

# F05MSV-N\*

FLOW CONTROL VALVE, NON-COMPENSATED WITH CHECK



F05MSV-N\* - FLOW CONTROL VALVE, NON-COMPENSATED WITH CHECK

# F05MSV-N\*

FLOW CONTROL VALVE, NON-COMPENSATED WITH CHECK



## DESCRIPTION

This is a non-compensated flow control valve with a check valve for reverse free flow.

## OPERATIONS

This valve increases its orifice value from fully closed to fully open with counter-clockwise rotation.

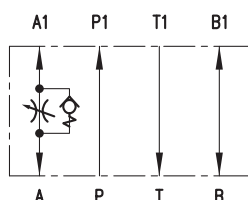
Available with check valve on line A, B or both lines, for meter-in and meter-out.

## TYPICAL PERFORMANCE SPECIFICATIONS

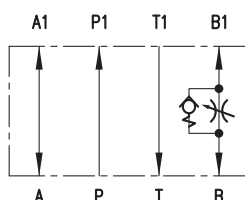
MAXIMUM OPERATING PRESSURE		5000 psi	350 bar
CRACKING PRESSURE		7 psi	0.5 bar
MAXIMUM FLOW RATE		32 gpm	120 l/min
MOUNTING SURFACE		NFPA D05 ISO 4401-05-04-0-05	
WEIGHT	With One Cartridge	5.1 lbs	2.3 kg
	With Two Cartridges	5.5 lbs	2.5 kg

## AVAILABLE VERSIONS

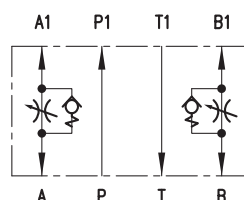
F05MSV-NOA



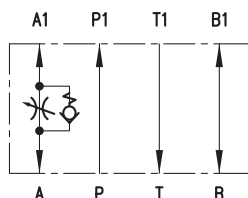
F05MSV-NOB



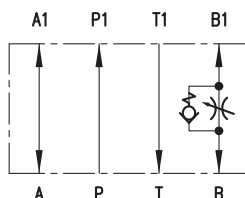
F05MSV-NOC



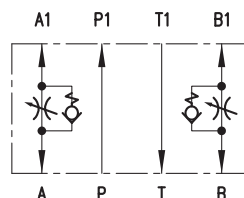
F05MSV-NIA



F05MSV-NIB



F05MSV-NIC



# IDENTIFICATION CODE

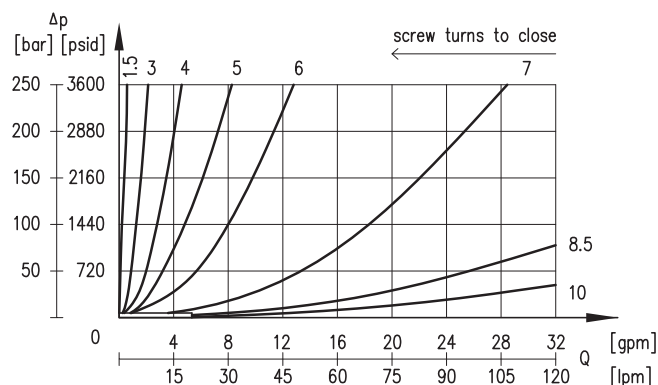
**F05MSV-N**     -     **C** -   \_\_\_\_\_ DESIGN LETTER

METER IN/METER OUT		CONTROL PORT		SEAL		MECHANICAL		BODY MATERIAL	
<b>I</b>	In	<b>A</b>	Port A	<b>A</b>	Buna (STD)	<b>OMIT</b>	Adjustment Screw (STD)	<b>C</b>	Cast Iron
<b>O</b>	Out	<b>B</b>	Port B	<b>G</b>	Viton	<b>K</b>	Adjustment Knob		
		<b>C</b>	Port A and B						

TYPICAL ORDERING CODE:  
**F05MSV-NIA-AC-F**

## PERFORMANCE CURVES

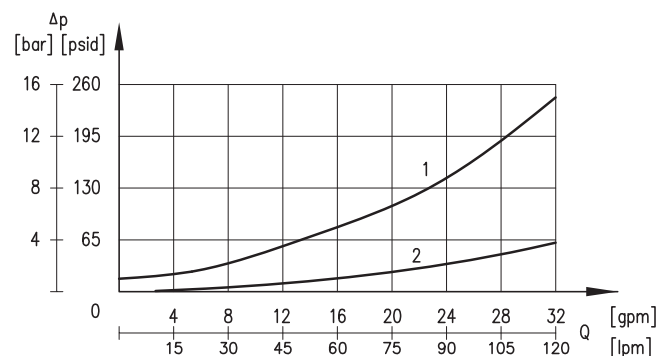
### FLOW ADJUSTMENT



#### NOTES:

- Controlled flow as a function of pressure drop with different restrictor opening values.
- Values obtained with oil viscosity of 170 SUS (36 cSt) at 122°F (50°C).

### PRESSURE DROPS $\Delta p$ - Q



#### NOTES:

- Pressure drops through the check valve with restrictor all closed.
- Pressure drops through the free ports.

Dimensions in mm [IN]



# APPLICATION DATA

## FLUIDS

All pressure drops shown on these data pages are based on 170 SUS fluid viscosity and 0.87 specific gravity. For any other specific gravity (G1) the pressure drop ( $\Delta P$ ) will be approx.  $\Delta P1 = \Delta P (G1/G)$ . See the chart for other viscosities.

FLUID VISCOSITIES	Cst	10	14.5	32	36	43	54	65	76	86	108	216	324	400
	SUS	60	75	150	170	200	250	300	350	400	500	1000	1500	1900
MULTIPLIER		0.77	0.81	0.97	1.00	1.04	1.10	1.15	1.20	1.24	1.31	1.56	1.72	1.83

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code G). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department.

Using fluids at temperatures higher than 180 °F causes the accelerated degradation of seals as well as degradation of the fluids physical and chemical properties.

From a safety standpoint, temperatures above 130 degrees F are not recommended.

## SEAL KIT

BUNA SEAL KIT	1013665
VITON SEAL KIT	1013666

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URABLE  
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PERCITILE

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**CONTINENTAL**



**HYDRAULICS**