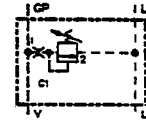


**INDEX TO SCREW-IN CARTRIDGE
SERIES 601-M CONTROL MODULES
(DS 85100)**

Relief Valves	DS-85100-D.100
Two-Way Valves	DS-85100-D.200
Relief Valve & Two-Way Valves	DS-85100-D.300
Pull out to Read Gauge, Series	DS-85100-D.400
Pull out to Read Gauge, Parallel to Read	DS-85100-D.401
Needle Valve	DS-85100-D.500
Proportional Pressure Control (P ² C)	DS-85100-D.600
Single Pressure Switches	DS-85100-D.800
Dual Pressure Switch	DS-85100-D.900
Sub-Plate Control Module	DS-85100-D.1000

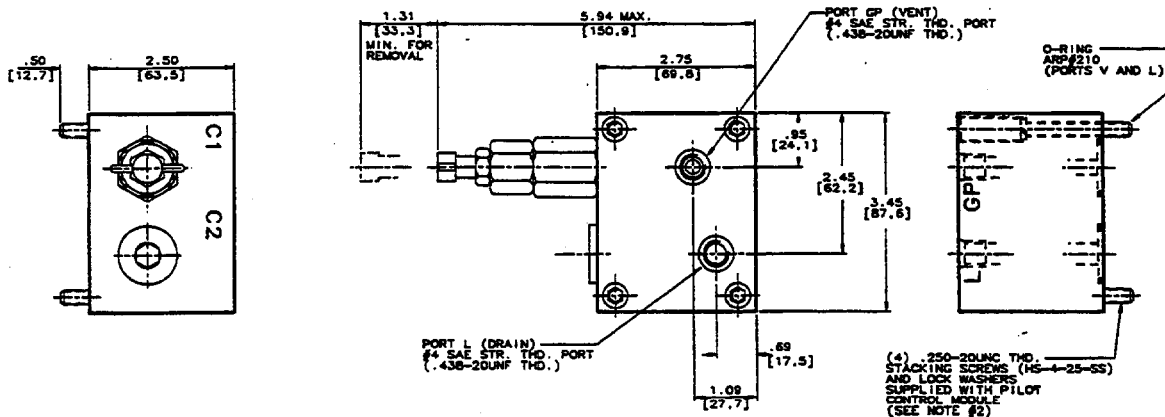
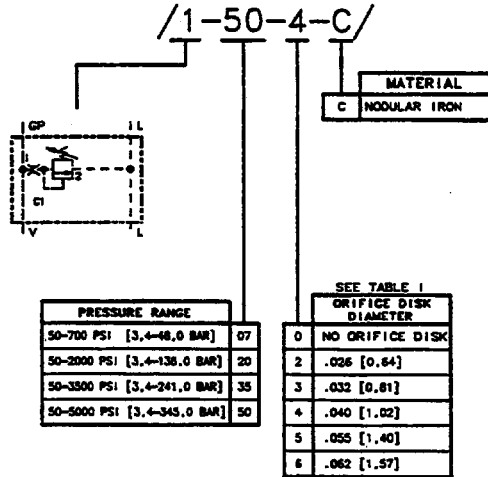
SERIES 601-M



Data Sheet

Pilot Control Module, Relief Valve

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM



MODULE	CARTRIDGE VALVE	CARTRIDGE CATALOG PAGE NO.	CARTRIDGE SEAL KIT
/1/	HSLR602-P-XX-X	DS 82550-B2.	HSSK-600-D

* DESIGN SERIES SUBJECT TO CHANGE. NEW SERIES WILL BE FUNCTIONALLY AND PHYSICALLY INTERCHANGEABLE.

MAIN CARTRIDGE VALVE	ORIFICE PLUG DIAMETER			
	800	1200	1600	2000
HSR, HSS, HSU, & HSUD	—	.040	.040	.040
HSPR, HSPRB, & HSPRR	—	.032	.032	.040

NOTES:

- 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE.
- MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14,69 N-M] FOR MULTIPLE STACKING OF MODULES. BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14,69 N-M]. FOR EACH SUBSEQUENT MODULE, REDUCE TORQUE BY 5 IN.-LBS. [0,56 N-M].
- FOR REPLACEMENT BOLT KIT ORDER : HSBK-PCM-D
- FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-A

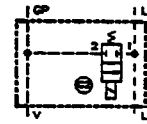
INCHES
[mm]

501912HS

Telephone: (414) 327-1700
Fax: (414) 327-0532

OILGEAR
2300 So. 51st. Street
Milwaukee, WI USA 53219

Reissued: Nov., 1995
DS 85100-D.100

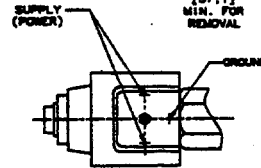
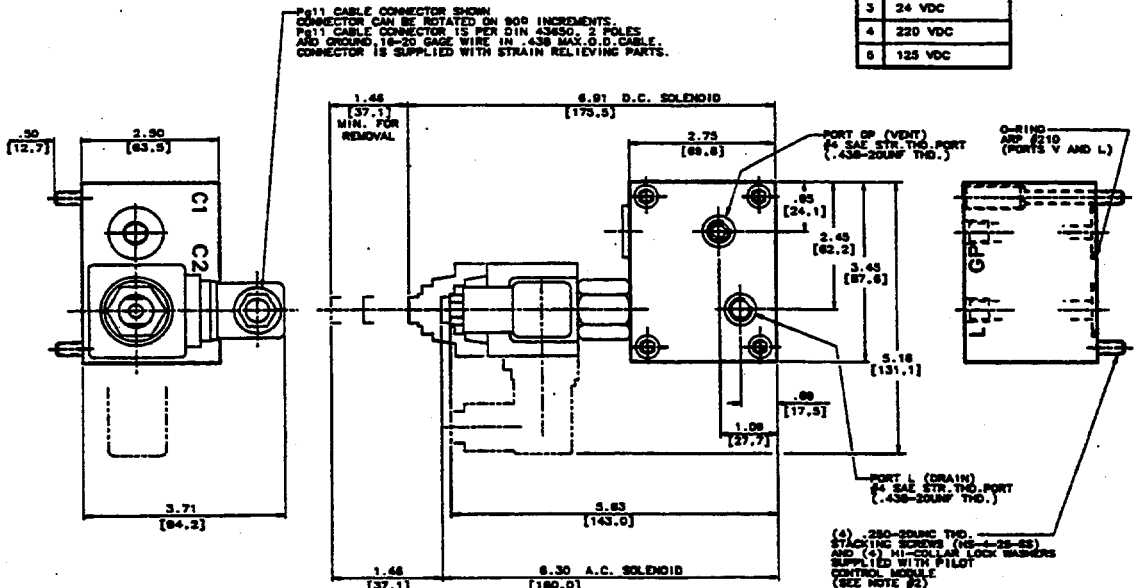
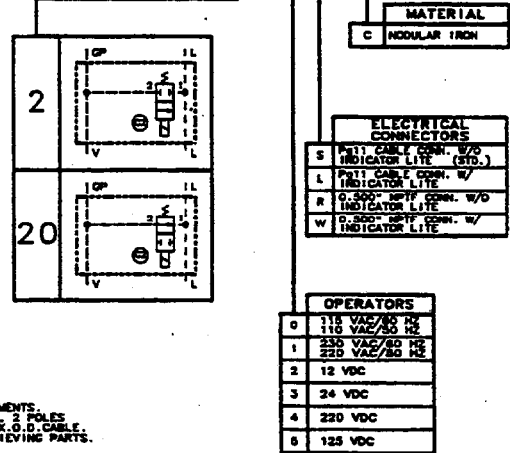


Data Sheet

Pilot Control Module, 2-Way Valves

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM

/20-0S-C/



SOLENOID CURRENT RATINGS				
OPERATOR	VOLTS AC	AMPERES		
		60 HZ	50 HZ	
		INHEM HOLDING	INHEM HOLDING	
0	115	1.70	.45	1.80 .32
1	230	.68	.22	.80 .28
OPERATOR	VOLTS DC	AMPERES HOLDING		
2	12	2.50		
3	24	1.25		
4	220	.14		
5	125	.25		

MODULE	CARTRIDGE VALVE	CARTRIDGE CATALOG PAGE NO.	CARTRIDGE SEAL KIT
/2/	HSSVC-604-JX	DS-601S2 C1.1	HSSK-600-1
/20/	HSSVC-604-JX	DS-601S2 C1.1	HSSK-600-1

- NOTES:
- 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE
 - MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14.66 N-M] FOR MULTIPLE STACKING OF MODULES, BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14.66 N-M] FOR EACH SUBSEQUENT MODULE. REDUCE TORQUE BY 5 IN.-LBS. [0.56 N-M].
 - FOR REPLACEMENT BOLT KIT ORDER : HSSK-PCM-0
 - FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-A

501913HS

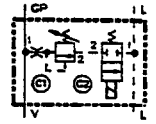
Telephone: (414) 327-1700
 Fax: (414) 327-0532

OILGEAR
 2300 So. 51st. Street
 Milwaukee, WI USA 53219

Reissued: Nov., 1995

DS 85100-D.200

SERIES 601-M

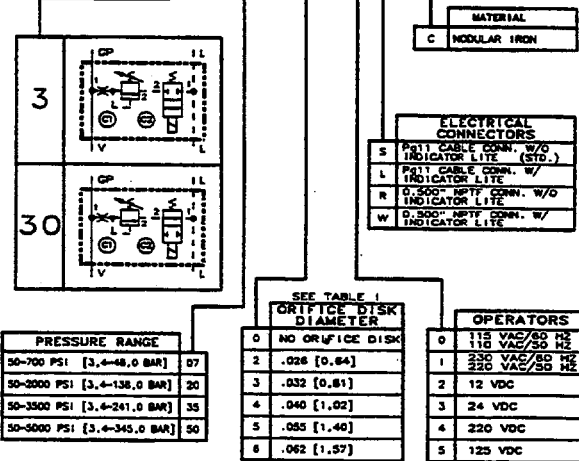


Data Sheet

Pilot Control Module, Relief and 2-Way Valves

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM

/30-50-0-0S-C/



P#11 CABLE CONNECTOR SHOWN CAN BE ROTATED ON 90° INCREMENTS. P#11 CABLE CONNECTOR IS PER DIN 43650, 2 POLES AND GROUND, 18-20 GAUGE WIRE IN .438 MAX. O.D. CABLE CONNECTOR IS SUPPLIED WITH STRAIN RELIEFING PARTS.

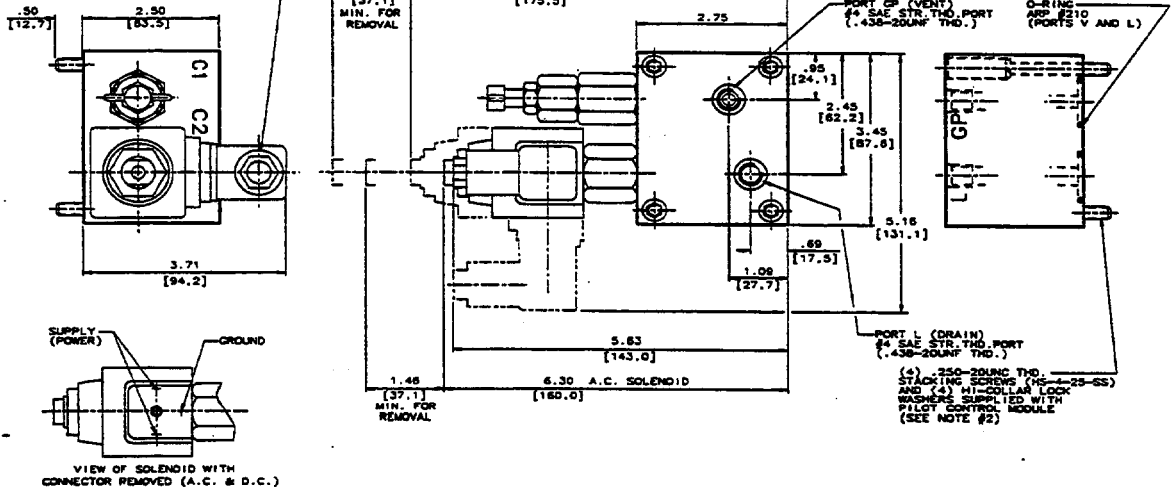


TABLE I

PILOT CONTROL ORIFICE DISK DIAMETER MUST BE THE SAME AS THE MAIN CARTRIDGE VALVE ORIFICE PLUG DIAMETER.

MAIN CARTRIDGE VALVE	ORIFICE PLUG DIAMETER			
	800	1200	1800	2000
NSR, NSZ, NSU, & NSUD	.040	.040	.040	.040
NSPR, NSPRE, & NSPRR	.032	.032	.032	.040
NSVR, & NSVPR	.032	---	---	---

MODULE	CARTRIDGE VALVE	CARTRIDGE CATALOG PAGE NO.	CARTRIDGE SEAL KIT
/3/	HSLR602-P-XX-X	DS 8250 B21	HSSK-600-D
	HSSVC-604-XX	DS 80152 C1.1	HSSK-600-I
/30/	HSLR602-P-XX-X	DS 8250 B21	HSSK-600-D
	HSSVC-604-XX	DS 80152 C1.1	HSSK-600-I

SOLENOID CURRENT RATINGS

OPERATOR	VOLTS AC	AMPERES	
		60 HZ INRUSH HOLDING	50 HZ INRUSH HOLDING
0	115	1.70 .45	1.80 .52
1	230	.85 .22	.80 .28
OPERATOR	VOLTS DC	AMPERES HOLDING	
		2	12
3	24	1.25	
4	220	.14	
5	125	.28	

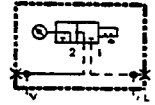
NOTES:

- 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE
- MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14.69 N-M] FOR MULTIPLE STACKING OF MODULES. BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14.69 N-M]. FOR EACH SUBSEQUENT MODULE, REDUCE TORQUE BY 5 IN.-LBS. [0.56 N-M].
- FOR REPLACEMENT BOLT KIT ORDER: HSK-PDM-D
- FOR REPLACEMENT MODULE SEAL KIT ORDER: HSK-PDM-A

INCHES [mm]

501914HS

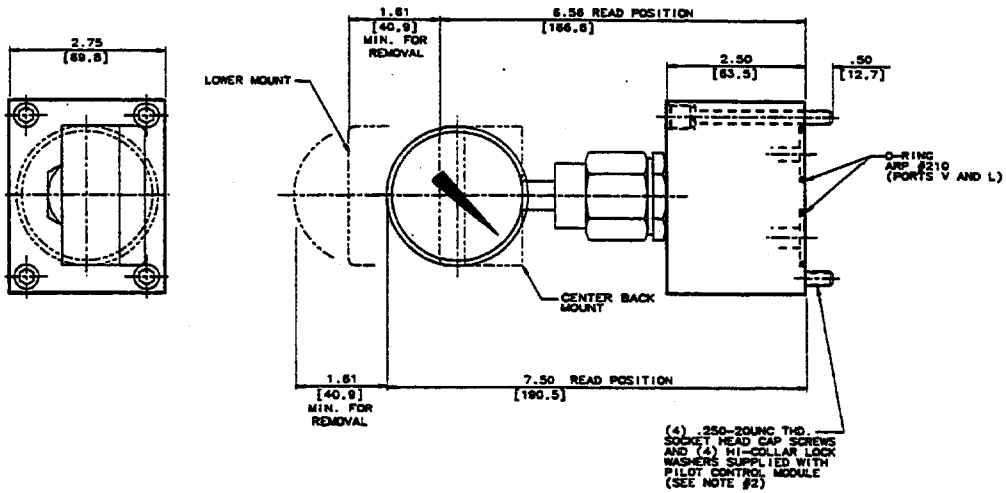
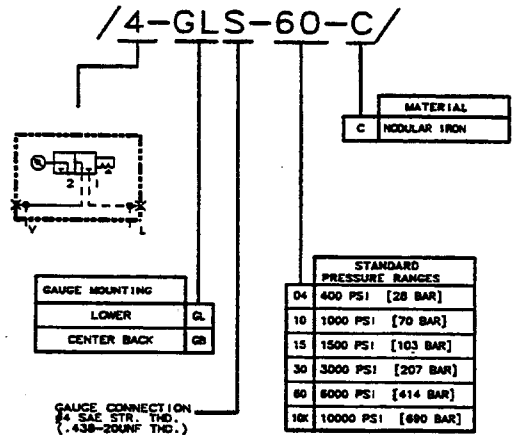
SERIES 601-M



Data Sheet

Pilot Control Module, Pull Out to Read Gauge, Series

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM



MODULE	CARTRIDGE VALVE	CARTRIDGE CATALOG PAGE NO.	CARTRIDGE SEAL KIT
/4/	HSPTR800-GLS-XX	DS 84950 C13.1	HSSK-800-E

* DESIGN SERIES SUBJECT TO CHANGE. NEW SERIES WILL BE FUNCTIONALLY AND PHYSICALLY INTERCHANGEABLE.

NOTES:

- 1) 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE
- 2) MAXIMUM RECOMMENDED SOCKET HEAD CAP SCREW TORQUE, 87 IN.-LBS. [9.83 N-M]
- 3) WORKING PRESSURE SHOULD BE LIMITED TO SIZE OF DIAL RANGE, 3000 PSI [345 BAR] MAXIMUM.
- 4) GAUGES ARE DUAL CALIBRATED IN PSI AND BAR.
- 5) FOR REPLACEMENT BOLT KIT ORDER : HSSK-PCM-G
- 6) FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-A

INCHES
[mm]

501915HS

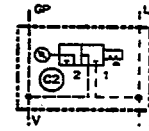
Telephone: (414) 327-1700
Fax: (414) 327-0532

OILGEAR
2300 So. 51st. Street
Milwaukee, WI USA 53219

Reissued: Nov., 1995

DS 85100-D.400

SERIES 601-M

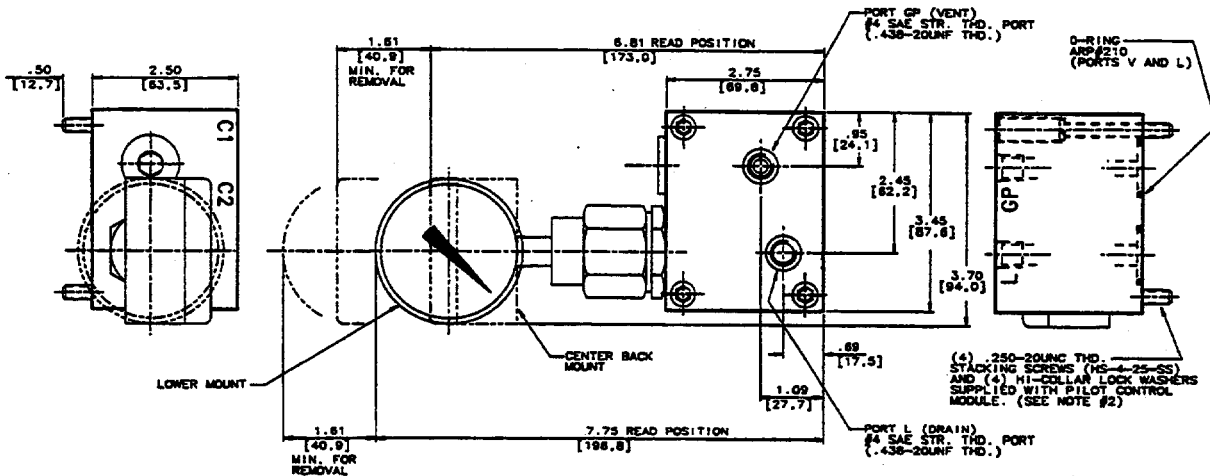
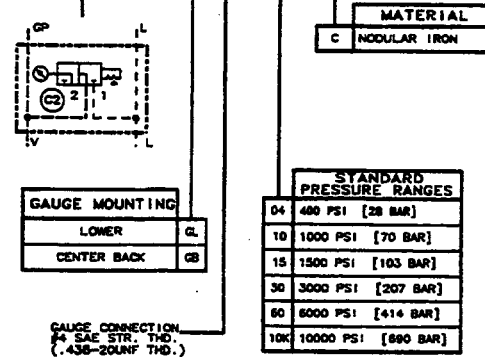


Data Sheet

Pilot Control Module, Pull to Read Gauge Parallel

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM

/4M-GLS-60-C/



MODULE	CARTRIDGE VALVE	CARTRIDGE CATALOG PAGE NO.	CARTRIDGE SEAL KIT
/4M/	HSPTR600-GLS-XX	DS 8480 C13.1	HSSK-600-E

DESIGN SERIES SUBJECT TO CHANGE. NEW SERIES WILL BE FUNCTIONALLY AND PHYSICALLY INTERCHANGEABLE.

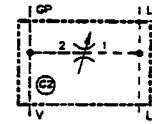
NOTES:

- 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE.
- MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14.69 N-M] FOR MULTIPLE STACKING OF MODULES. BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14.69 N-M]. FOR EACH SUBSEQUENT MODULE, REDUCE TORQUE BY 5 IN.-LBS. [0.56 N-M].
- WORKING PRESSURE SHOULD BE LIMITED TO 60% OF DIAL RANGE, 5000 PSI [345 BAR] MAXIMUM.
- GAUGES ARE DUAL CALIBRATED IN PSI AND BAR.
- FOR REPLACEMENT BOLT KIT ORDER : HSSK-PCM-D
- FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-A

INCHES
[mm]

501916HS

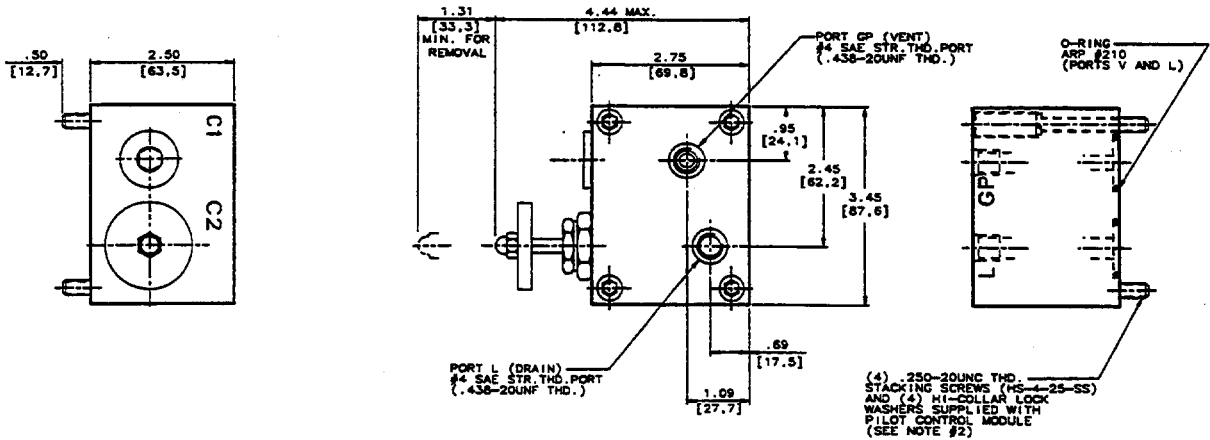
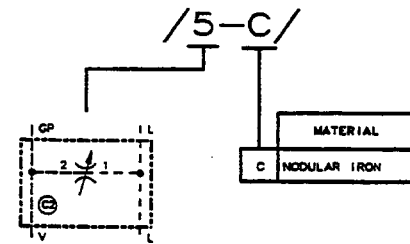
SERIES 601-M



Data Sheet

Pilot Control Module, Needle Valve

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM



MODULE	CARTRIDGE VALVE	CARTRIDGE PAGE NO.	CARTRIDGE SEAL KIT
/5/	HSN600	DS 84150 A1.1	HSSK-600-P

* DESIGN SERIES SUBJECT TO CHANGE. NEW SERIES WILL BE FUNCTIONALLY AND PHYSICALLY INTERCHANGEABLE.

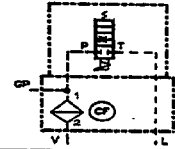
NOTES:

- 1) 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE
- 2) MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14.89 N-M] FOR MULTIPLE STACKING OF MODULES. BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14.89 N-M]. FOR EACH SUBSEQUENT MODULE, REDUCE TORQUE BY 5 IN.-LBS. [0.56 N-M].
- 3) FOR REPLACEMENT BOLT KIT ORDER : HSSK-PCM-0
- 4) FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-A

INCHES
[mm]

501917HS

Series 601-M

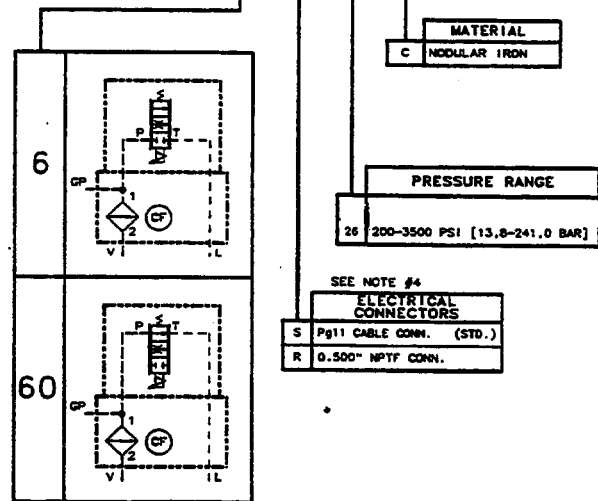


Data Sheet

Pilot Control Module, Proportional Pressure Control (P²C)

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM

/60-S-15-C/



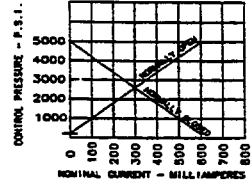
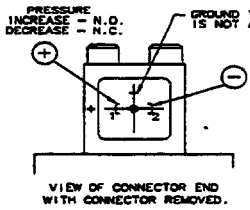
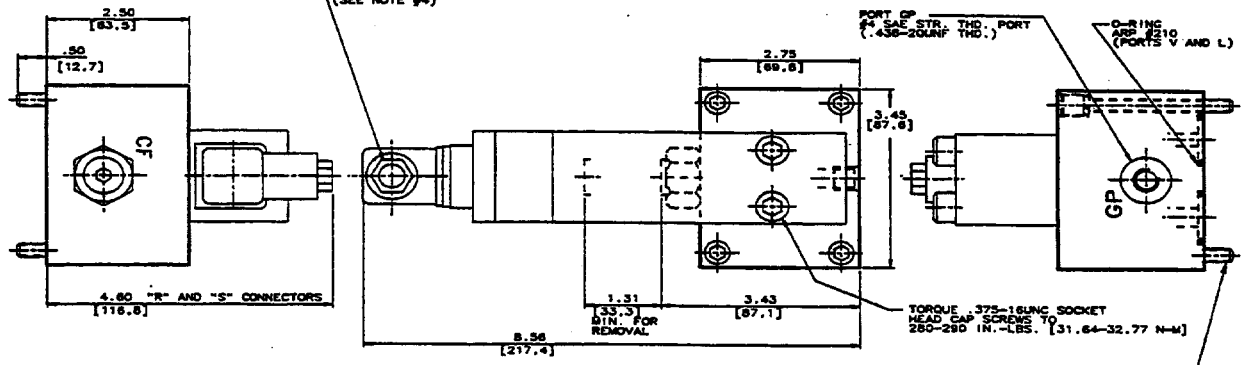
MATERIAL	
C	MODULAR IRON

PRESSURE RANGE	
26	200-3500 PSI [13.8-241.0 BAR]

SEE NOTE #4

ELECTRICAL CONNECTORS	
S	Pg11 CABLE CONN. (STD.)
R	0.500" NPTF CONN.

Pg11 CABLE CONNECTOR SHOWN. CONNECTOR CAN BE ROTATED ON 90° INCREMENTS. Pg11 CABLE CONNECTOR IS PER DIN 43650. 2 POLES AND GROUND. CONNECTOR IS 18-20 GAUGE WIRE IN .438 MAX. O.D. CABLE. CONNECTOR IS SUPPLIED WITH STRAIN RELIEVING PARTS. (SEE NOTE #4)



(4) .250-20UNC THD. SOCKET HEAD CAP SCREWS AND (6) 1/8" O.D. LOCK WASHERS SUPPLIED WITH PILOT CONTROL MODULE (SEE NOTE #2)

- PERFORMANCE DATA**
- 1) OPERATING VOLTAGE: 24 VOLTS D.C.
 - 2) HYSTERESIS: LESS THAN 5%
 - 3) COIL RESISTANCE: 24 OHMS NOMINAL AT 68°F. (20°C.)
 - 4) FLUID: HYDRAULIC (WITH 40 MICRON FILTRATION)
 - 5) OPERATING TEMPERATURE 140°F. (60°C.)
 - 6) VALVE BODY IS STEEL. ENVELOPE PRESSURE RATINGS:
"P" PORT - 5000 P.S.I.
"T" PORT - 2 P.S.I.
 - 7) TANK PORT MUST BE CONNECTED DIRECTLY TO TANK AND BELOW FLUID LEVEL.
- NOTE: BACK PRESSURE OR FLUCTUATION OF PRESSURE IN TANK LINE WILL REFLECT ON CONTROLLED PRESSURE.

MODULE	CARTRIDGE VALVE	CARTRIDGE CATALOG PAGE NO.	CARTRIDGE SEAL KIT
S/ & /60/	HSCF600-40	DS 8492 C15.1	HSSK-600-W

DESIGN SERIES SUBJECT TO CHANGE. NEW SERIES WILL BE FUNCTIONALLY AND PHYSICALLY INTERCHANGEABLE.

- NOTES:**
- 1) 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE.
 - 2) MAXIMUM RECOMMENDED SOCKET HEAD CAP SCREW TORQUE: 67 IN.-LBS. [9.83 N-M]
 - 3) FOR REPLACEMENT FUSE ELEMENT (40 MICRON) ORDER: HSCF-E-40
 - 4) RECOMMENDED CABLE: BELDEN #8720 (2 CONDUCTOR SHIELDED BEDFOIL CABLE. #14 AWG WIRE, CHROME VINYL JACKET) OR EQUIVALENT WITH #18 AWG WIRE MINIMUM.
 - 5) FOR REPLACEMENT BOLT KIT ORDER: HSSK-POM-E
 - 6) FOR REPLACEMENT MODULE SEAL KIT ORDER: HSSK-POM-E

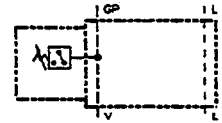
501918HS

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Fax: (414) 327-0532

OILGEAR
2300 So. 51st. Street
Milwaukee, WI USA 53219

Reissued: Nov., 1995
DS 85100-D.600

Series 601-M

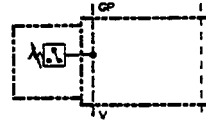


Data Sheet

Pilot Control Module, Single Pressure Switch

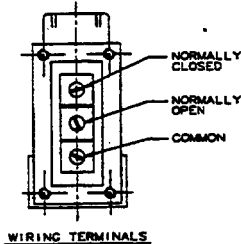
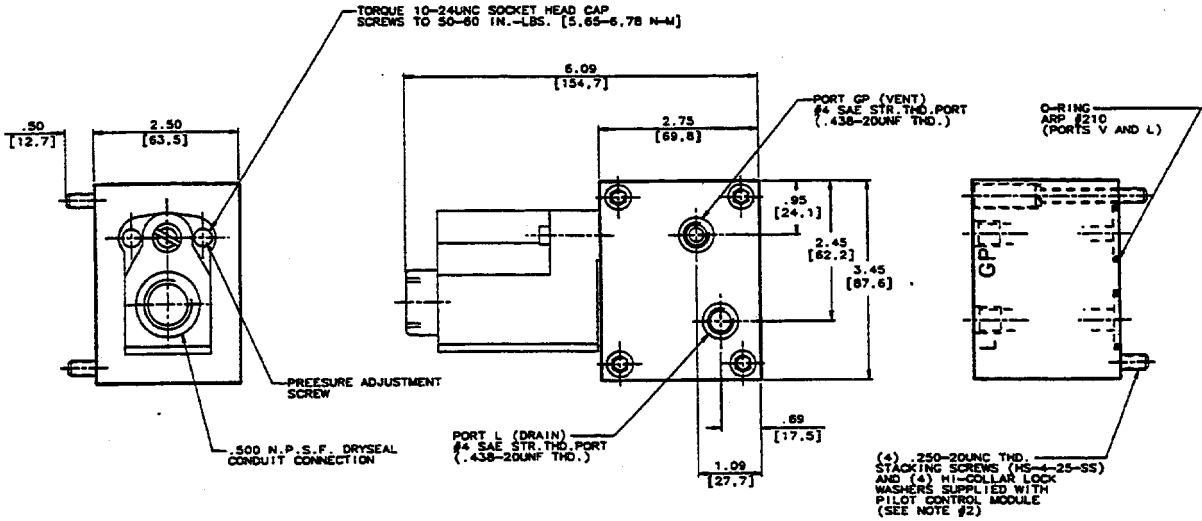
PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM

/8-8-C/



MATERIAL	
C	MODULAR IRON

SPRING RANGE		
1	50-100 PSI	[3.4-6.9 BAR]
2	100-300 PSI	[6.9-20.7 BAR]
3	300-500 PSI	[20.7-34.5 BAR]
4	500-1000 PSI	[34.5-69.0 BAR]
5	1000-2000 PSI	[69.0-138.0 BAR]
6	2000-3000 PSI	[138.0-207.0 BAR]
7	3000-4000 PSI	[207.0-276.0 BAR]
8	4000-5000 PSI	[276.0-345.0 BAR]



ELECTRICAL DATA

SINGLE POLE, DOUBLE THROW ELEMENT, U.L. RATED FOR 15 AMPS AT 125, 250, OR 460 VOLTS A.C.; .50 AMP AT 125 VOLTS D.C.; .25 AMP AT 250 VOLTS D.C. ELECTRICAL LEADS ARE NOT FURNISHED WITH THE MODULE.

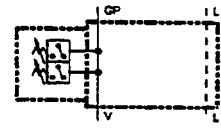
NOTES:

- 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE
- MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14.69 N-M] FOR MULTIPLE STACKING OF MODULES. BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14.69 N-M]. FOR EACH SUBSEQUENT MODULE, REDUCE TORQUE BY 5 IN.-LBS. [0.56 N-M].
- FOR REPLACEMENT BOLT KIT ORDER : HSBK-PCM-F
- FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-F

INCHES
[mm]

501919HS

SERIES 601-M

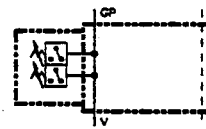


Data Sheet

Pilot Control Module, Dual Pressure Switches

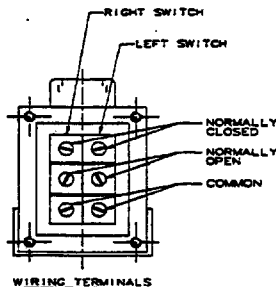
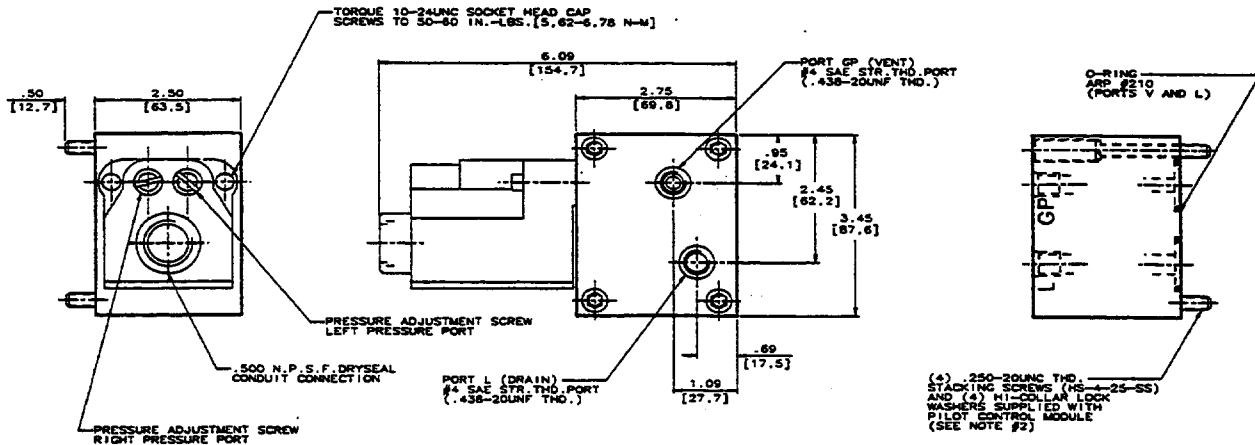
PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM

/9-88-C/



MATERIAL
C MODULAR IRON

SPRING RANGE LEFT PORT		SPRING RANGE RIGHT PORT	
50-100 PSI [3,4-6,9 BAR]	1	1	50-100 PSI [3,4-6,9 BAR]
100-300 PSI [6,9-20,7 BAR]	2	2	100-300 PSI [6,9-20,7 BAR]
300-500 PSI [20,7-34,5 BAR]	3	3	300-500 PSI [20,7-34,5 BAR]
500-1000 PSI [34,5-69,0 BAR]	4	4	500-1000 PSI [34,5-69,0 BAR]
1000-2000 PSI [69,0-138,0 BAR]	5	5	1000-2000 PSI [69,0-138,0 BAR]
2000-3000 PSI [138,0-207,0 BAR]	6	6	2000-3000 PSI [138,0-207,0 BAR]
3000-4000 PSI [207,0-276,0 BAR]	7	7	3000-4000 PSI [207,0-276,0 BAR]
4000-5000 PSI [276,0-345,0 BAR]	8	8	4000-5000 PSI [276,0-345,0 BAR]



ELECTRICAL DATA

SINGLE POLE, DOUBLE THROW ELEMENT, U.L. RATED FOR 15 AMPS AT 125, 250, OR 480 VOLTS A.C.; .50 AMP AT 125 VOLTS D.C.; .25 AMP AT 250 VOLTS D.C. ELECTRICAL LEADS ARE NOT FURNISHED WITH THE MODULE.

NOTES:

- 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE
- MAXIMUM RECOMMENDED STACKING SCREW TORQUE, 130 IN.-LBS. [14,69 N-M] FOR MULTIPLE STACKING OF MODULES. BOTTOM MODULE STACKING SCREWS TO BE TORQUED TO 130 IN.-LBS. [14,69 N-M]. FOR EACH SUBSEQUENT MODULE, REDUCE TORQUE BY 5 IN.-LBS. [0,56 N-M]
- FOR REPLACEMENT BOLT KIT ORDER : HSBK-PCM-F
- FOR REPLACEMENT MODULE SEAL KIT ORDER : HSSK-PCM-F

INCHES
[mm]

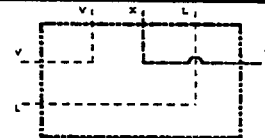
501920HS

Telephone: (414) 327-1700
Fax: (414) 327-0532

OILGEAR
2300 So. 51st. Street
Milwaukee, WI USA 53219

Reissued: Nov., 1995
DS 85100-D.900

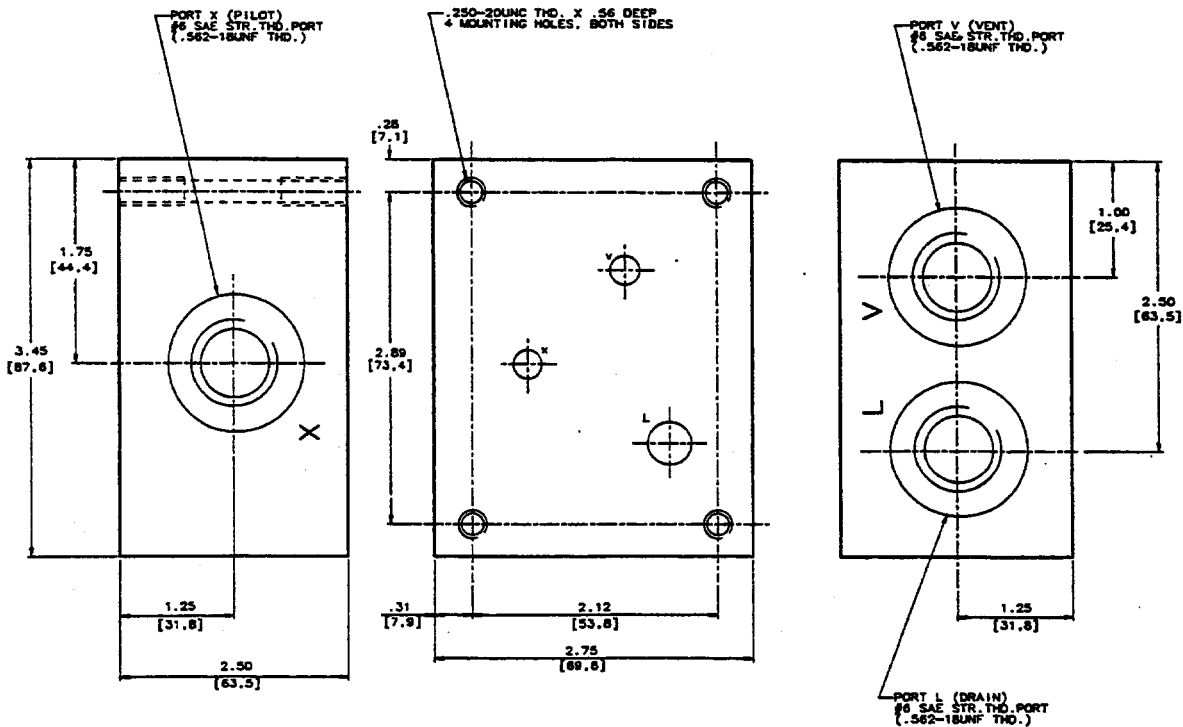
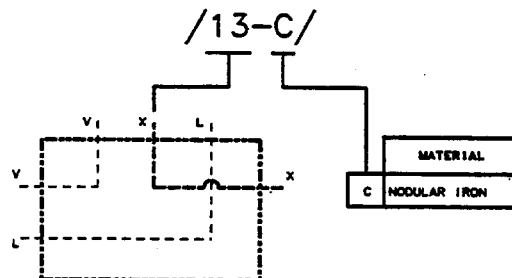
SERIES 601-M



Data Sheet

Pilot Control Module, Subplate

PILOT CONTROL WHEN ORDERING AS A LOOSE ITEM



NOTES:
1) 5000 PSI [345 BAR] MAXIMUM SERVICE PRESSURE.

INCHES
[mm]

400892HS