

Part number:

**004-10014****HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

**HC-D2****CARATTERISTICHE GENERALI - GENERAL SPECIFICATIONS****Condizioni di lavoro standard**

- PORTATA NOMINALE ..... **45 l/min**
- PRESSIONE NOMINALE ..... **350 bar**
- PRESSIONE MAX SULLA LINEA (T) ..... **20 bar**
- TEMPERATURA OPERATIVA ..... **-25°C / +80°C**
- VISCOSITA' CINEMATICA ..... **da 10 a 460 mm<sup>2</sup>/s**
- GRADO DI CONTAMINAZIONE ..... **19/16 ISO 4406**
- GRADO DI FILTRAGGIO ..... **β 10 > 75**

**Standard working conditions**

- FLOW RATE ..... **11,9 GPM**
- PRESSURE RATE ..... **5000 PSI**
- MAX PRESSURE ON (T) ..... **290 PSI**
- OPERATING TEMPERATURE ..... **-25°C / +80°C**
- KINEMATIC VISCOSITY ..... **da 10 a 460 mm<sup>2</sup>/s**
- CONTAMINATION LEVEL ..... **19/16 ISO 4406**
- FILTRATION LEVEL ..... **β 10 > 75**

**Caratteristiche tecniche**

- NUMERO SEZIONI DI LAVORO ..... **1 - 5**
- CORSA DELLA SPOLA ..... **5 + 5 mm**
- INTERASSE STELI ..... **35 mm**

**Technical specifications**

- WORKING SECTION NUMBER ..... **1 - 5**
- SPOOL STROKE ..... **0,197 + 0,197 in**
- SPOOLS PITCH ..... **1,379 in**

**Compatibilità fluidi****Fluid compatibility**

TIPI DI FLUIDI (Oli e Soluzioni)	TEMP. (C°)		GUARNIZIONI	
	min	max	NBR	VITON(*)
Olio minerale HPL (DIN 51524)	-25	+80	•	•
Olio in emulsione acquosa HFA(*)	+5	+55	•	•
Acqua in emulsione oleosa HFB(*)	+5	+55	•	•
Soluzione acquosa in poliglicoli HFC(*)	-25	+60	•	
Esteri di acido fosforico HCD(*)	-20	+150		•

- (\*) : previo accordo con il n/s Ufficio Tecnico - Commerciale.  
 NBR : miscela nitrilica compatibile con oli a base minerale ASTIM 1.  
 VITON : elastomero fluorurato per impieghi ad alta temperatura, compatibile con fluidi ASTIM 1 e ASTIM 3.

TYPE OF FLUID (Oil and Solution)	TEMP. (C°)		GASKET	
	min	max	NBR	VITON(*)
Mineral oil HPL (DIN 51524)	-25	+80	•	•
Oil in water emulsion HFA(*)	+5	+55	•	•
Water in oil emulsion HFB(*)	+5	+55	•	•
Polyglycol-based aqueous sol. HFC(*)	-25	+60	•	
Ester of phosphoric acid HCD(*)	-20	+150		•

- (\*) : for this application, please contact our technical sales office.  
 NBR : nitrile rubber compatible with mineral-bases oils ASTIM 1.  
 VITON : fluorinated elastomer for use at high temperature, compatible with fluids ASTIM 1 and ASTIM 3.

**Unità di misura - Fattori conversione****Unit of measure - Conversion factors**

Sistemi / Unità	METRICO	BRITANNICO
<b>LUNGHEZZA</b>	1 mm = 0,0394 in	1 in = 25,4 mm
<b>MASSA</b>	1 kg = 2,205 lb	1 lb = 0,4536 kg
<b>FORZA</b>	1 Nm = 0,1020 kgf	1 kgf = 9,8067 Nm
<b>VOLUME</b>	1 l = 0,2200 gal UK 1 l = 0,2642 gal US	1 gal UK = 4,546 l 1 gal US = 3,785 l
<b>PRESSIONE</b>	1 bar = 100000 Pa 1 bar = 14,5 psi	1 Pa = 0,00001 bar 1 psi = 0.0689 bar

Systems / Unit	METRIC	BSP
<b>LENGTH</b>	1 mm = 0,0394 in	1 in = 25,4 mm
<b>MASS</b>	1 kg = 2,205 lb	1 lb = 0,4536 kg
<b>FORCE</b>	1 Nm = 0,1020 kgf	1 kgf = 9,8067 Nm
<b>VOLUME</b>	1 l = 0,2200 gal UK 1 l = 0,2642 gal US	1 gal UK = 4,546 l 1 gal US = 3,785 l
<b>PRESSURE</b>	1 bar = 100000 Pa 1 bar = 14,5 psi	1 Pa = 0,00001 bar 1 psi = 0.0689 bar

Esempio di ordinazione:

Order example:

### VERSIONE STANDARD

HC-D2/1

A

IR 301 150

B

pag. 9

W001A H001 F001A

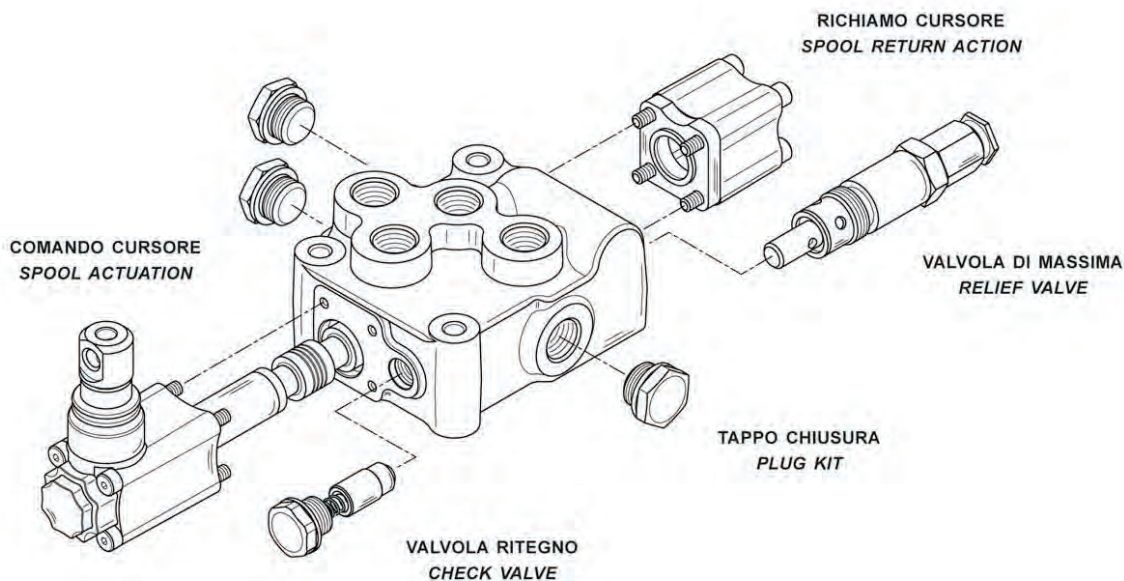
C

pag. 10

MJ A G03

D

pag. 19



**A:** TIPOLOGIA DISTRIBUTORE MONOBLOCCO

D2 = tipologia prodotto  
/1 = numero sezioni di lavoro

**A:** MONOBLOCK VALVE TYPE

D2 = product type  
/1 = number of sections

**B:** ALLESTIMENTO ENTRATA

IR 301 = lato entrata e tipologia valvola .....pag. 9  
150 = taratura (bar)

**B:** INLET ARRANGEMENT

IR 301 = inlet side and valve type .....page 9  
150 = setting (bar)

**C:** ALLESTIMENTO SEZIONE DI LAVORO

W001A = cursore .....pag. 10  
H001 = comando cursore .....pag. 12  
F001A = richiamo cursore .....pag. 15

**C:** WORK SECTION ARRANGEMENT

W001A = spool .....page 10  
H001 = spool actuation .....page 12  
F001A = spool return action .....page 15

**NOTA:** le sigle del riferimento C, devono essere ripetute tante volte, quante sono le sezioni che compongono il monoblocco.

**NOTE:** ordering row C must be repeated for every work section.

**D:** TIPOLOGIA ALLESTIMENTO USCITA

MJ = tipologia uscita .....pag. 19  
A G03 = posizione scarico e filettatura

**D:** OUTLET ARRANGEMENT

MJ = outlet type .....page 19  
A G03 = outlet and thread position

Esempio di ordinazione:

Order example:

### VERSIONE HPCO

HC-D2/1

**A**

IR 301 150

**B**

pag. 9

W001A H001 F001A

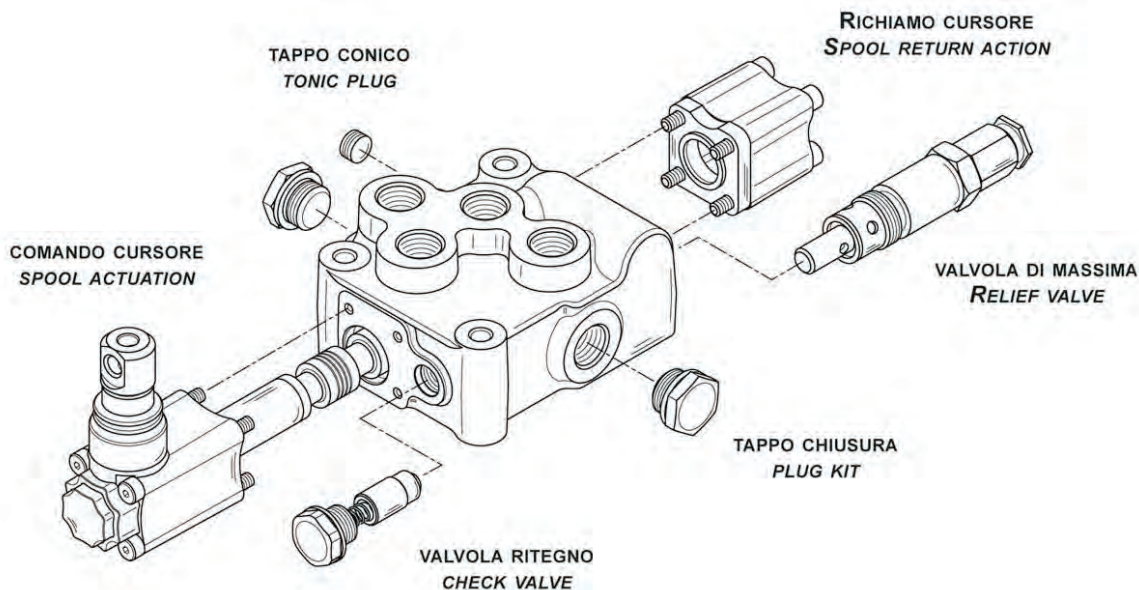
**C**

pag. 10

MM U G03

**D**

pag. 19



**A:** TIPOLOGIA DISTRIBUTORE MONOBLOCCO

D2 = tipologia prodotto  
/1 = numero sezioni di lavoro

**A:** MONOBLOCK VALVE TYPE

D2 = product type  
/1 = number of sections

**B:** ALLESTIMENTO ENTRATA

IR 301 = lato entrata e tipologia valvola . . . . .pag. 9  
150 = taratura (bar)

**B:** INLET ARRANGEMENT

IR 301 = inlet side and valve type . . . . .page 9  
150 = setting (bar)

**C:** ALLESTIMENTO SEZIONE DI LAVORO

W001A = cursore . . . . .pag.10  
H001 = comando cursore . . . . .pag.12  
F001A = richiamo cursore . . . . .pag.15

**C:** WORK SECTION ARRANGEMENT

W001A = spool . . . . .page 10  
H001 = spool actuation . . . . .page 12  
F001A = spool return action . . . . .page 15

**NOTA:** le sigle del riferimento C, devono essere ripetute tante volte, quante sono le sezioni che compongono il monoblocco.

**NOTE:** ordering row C must be repeated for every work section.

**D:** TIPOLOGIA ALLESTIMENTO USCITA

MM = tipologia uscita . . . . .pag.19  
U G03 = posizione scarico e filettatura

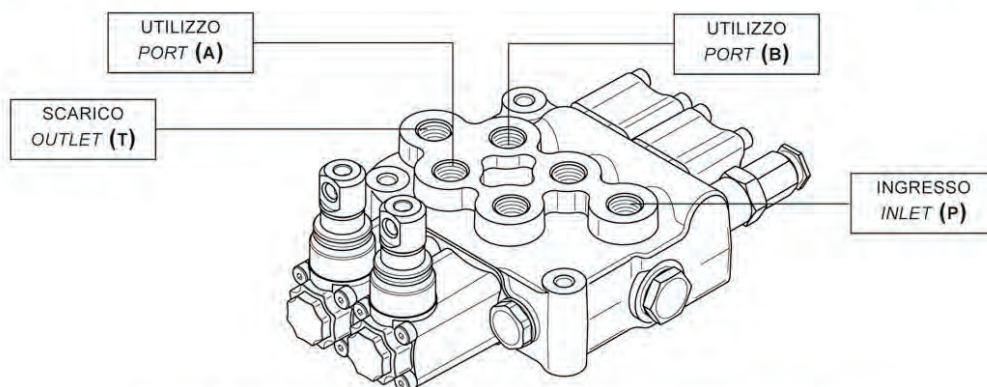
**D:** OUTLET ARRANGEMENT

MM = outlet type . . . . .page 19  
U G03 = outlet and thread position

## DIMENSIONI - DIMENSIONS

### Filettature standard

### Standard thread



UTILIZZI PORTS	filettature / thread (BSP)	
	ISO-228	SAE UN-UNF
Ingresso / Inlet P	G 3/8	3/4"-16 UNF
Utilizzi / Ports A - B	G 3/8	3/4"-16 UNF
Scarico / Outlet T	G 3/8	3/4"-16 UNF
Carry-over HPCO	G 3/8	3/4"-16 UNF

### Sigle di ordinazione

3/8" BSP

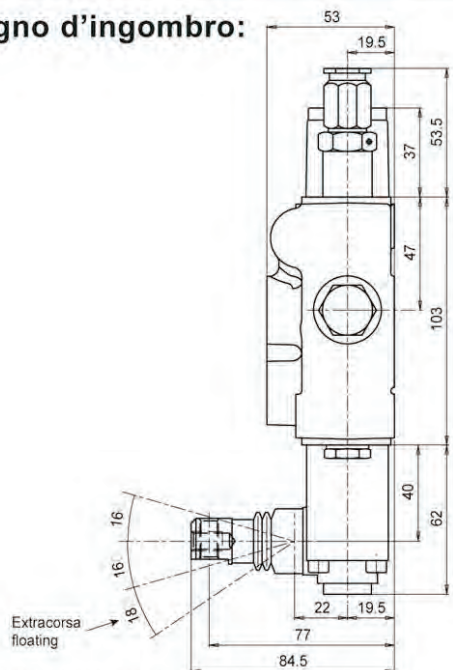
**G03**

3/4"-16 UNF

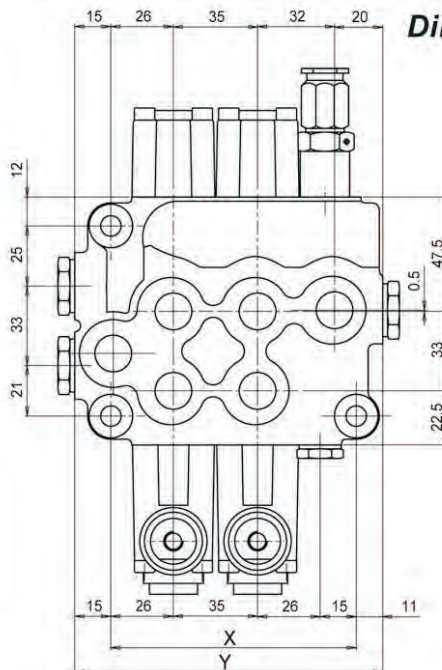
**U03**

### Ordering codes

### Disegno d'ingombro:



### Dimensional drawing:



### QUOTE VARIABILI - VARIABLE DIMENSIONS

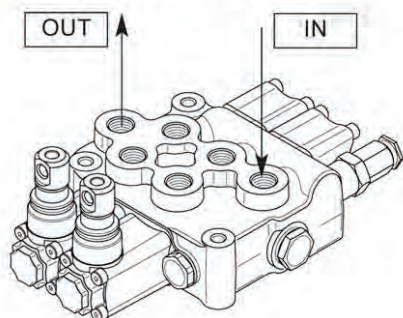
Tipo-Type	D2/1	D2/2	D2/3	D2/4	D2/5
<b>X (mm)</b>	67	102	137	172	207
<b>X (in)</b>	2,6	4	5,4	6,8	8,2
<b>Y (mm)</b>	92	127	162	197	232
<b>Y (in)</b>	3,6	5	6,4	7,8	9,2

### PESI - WEIGHTS

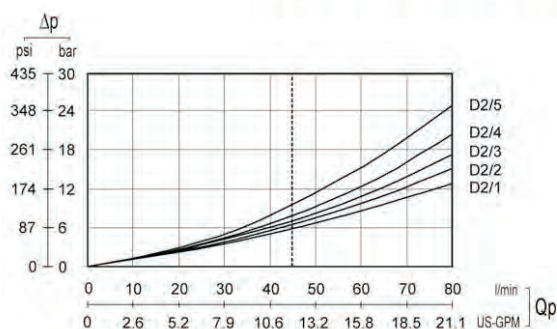
Tipo-Type	D2/1	D2/2	D2/3	D2/4	D2/5
<b>Kg</b>	2,7	4	5	6,5	7,9
<b>lb</b>	6	8,8	11	14,3	17,4

## CURVE CARATTERISTICHE - TYPICAL CURVES

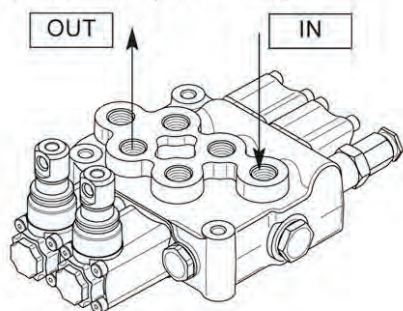
### Perdite di carico (P in T)



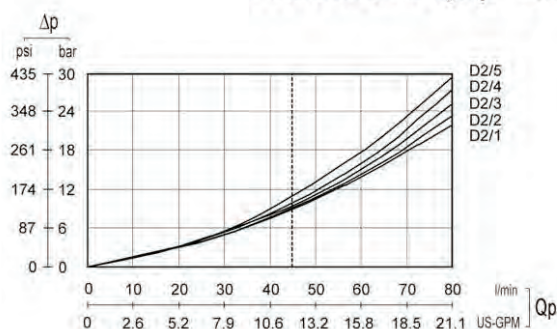
### Pressure drop (P - T)



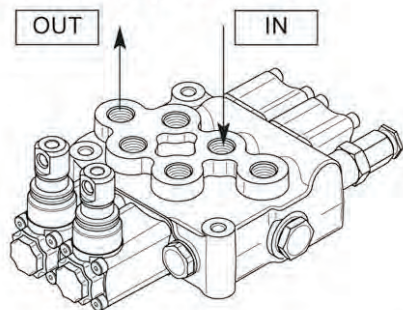
### Perdite di carico (P in A/B)



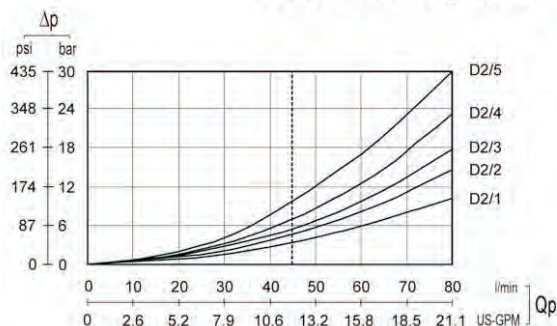
### Pressure drop (P - A/B)



### Perdite di carico (A/B in T)

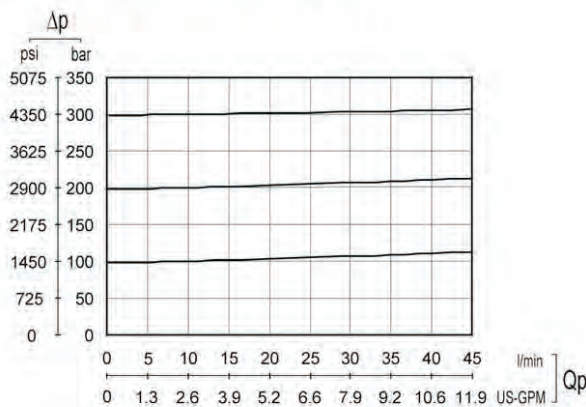


### Pressure drop (A/B - T)



### Curva valvola di massima diretta

### Direct relief valve curve



#### Campi di taratura - Setting ranges

- campo - range (A) = 10/40 BAR
- campo - range (B) = 41/70 BAR
- campo - range (C) = 71/130 BAR
- campo - range (D) = 131/210 BAR
- campo - range (E) = 211/350 BAR

**NOTA:** i valori indicati sono stati rilevati con un monoblocco in configurazione standard e cursori W001A.

**NOTE:** indicated values have been tested with standard monoblock valve and W001A spools.

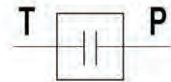
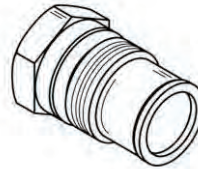
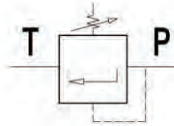
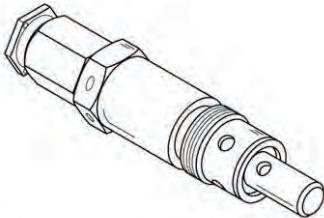
## ALLESTIMENTO ENTRATA - INLET ARRANGEMENT

### Classificazione valvole

### Valves identification

VALVOLA DI MASSIMA PRESSIONE DIRETTA  
DIRECT ACTING PRESSURE RELIEF VALVE

SEDE VALVOLA CON TAPPO  
RELIEF VALVE PLUGGED



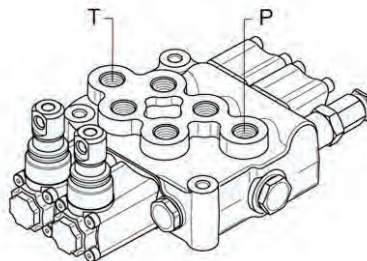
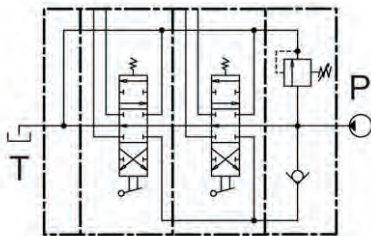
### Definizione lato di alimentazione

### Inlet side

SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

CONFIGURAZIONE  
LAYOUT

DESCRIZIONE + SIGLA  
DESCRIPTION + CODE



DISTRIBUTORE MONOBLOCCO  
ENTRATA DESTRA

MONOBLOCK DISTRIBUTOR  
RIGHT INLET

**IR**

### Allestimento valvole

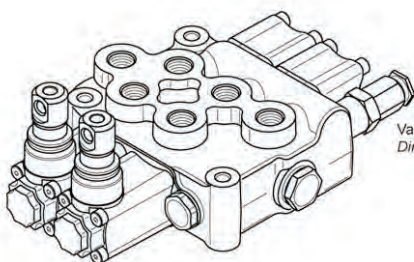
### Valve arrangement

ENTRATA DESTRA CON VALVOLA DI MASSIMA DIRETTA  
RIGHT INLET WITH DIRECT ACTING PRESSURE RELIEF VALVE

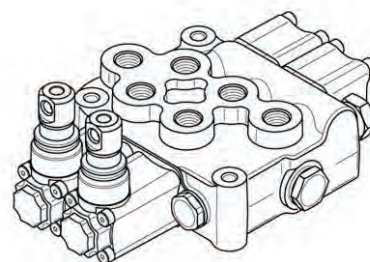
ENTRATA DESTRA SEDE VALVOLA CON TAPPO  
RIGHT INLET RELIEF VALVE PLUGGED

**IR 301**

**IR 303**



Valvola di Massima Diretta  
Direct acting pressure Relief Valve



Sede valvola con tappo  
Relief valve plugged

### Esempio di ordinazione

### Order example

**IR 301**

**150**

Valore di taratura (da specificare sempre in presenza di V.Max.).  
Setting (must always be specified when a relief valve is used).

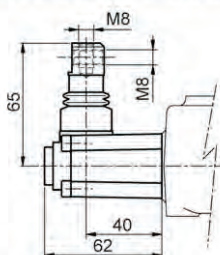
Entrata destra con valvola di massima diretta.  
Right inlet with direct acting pressure relief valve.

## COMANDO CORSORE - *SPOOL ACTUATION*

### Classificazione comandi cursore

### Spool actuation identification

#### DIMENSIONI - DIMENSIONS

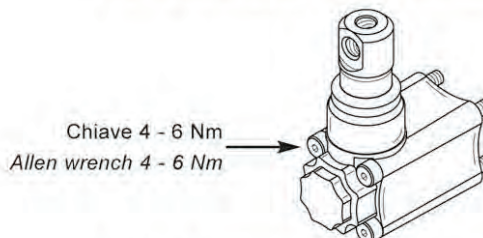


#### DESCRIZIONE - DESCRIPTION

**Comando leva protetta**  
*Protected lever*

**Comando leva protetta ruotato di 180°**  
*Protected lever rotated 180°*

#### COPPIE SERRAGGIO - CLAMPING TORQUE

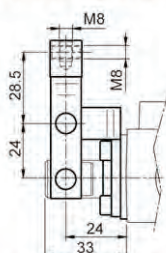


#### SIGLA DI ORDINAZIONE - ORDERING CODE

**H001**

**H002**

#### DIMENSIONI - DIMENSIONS

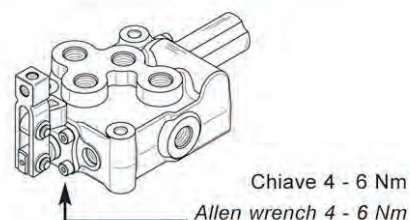


#### DESCRIZIONE - DESCRIPTION

**Comando leva non protetta**  
*Unprotected lever*

**Comando leva non protetta ruotato di 180°**  
*Unprotected lever rotated 180°*

#### COPPIE SERRAGGIO - CLAMPING TORQUE

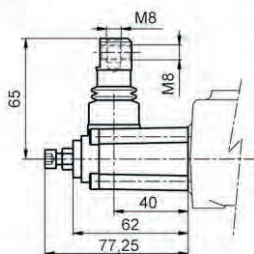


#### SIGLA DI ORDINAZIONE - ORDERING CODE

**H101**

**H102**

#### DIMENSIONI - DIMENSIONS

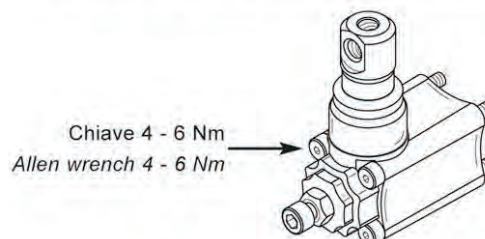


#### DESCRIZIONE - DESCRIPTION

**Comando leva con limitatore di corsa**  
*Protected lever with stroke limiter*

**Comando leva con limitatore di corsa ruotato di 180°**  
*Protected lever rotated 180° with stroke limiter*

#### COPPIE SERRAGGIO - CLAMPING TORQUE



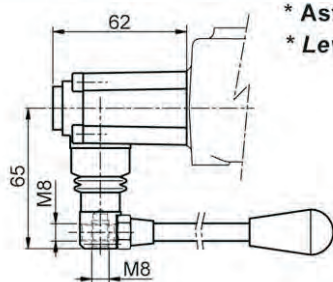
#### SIGLA DI ORDINAZIONE - ORDERING CODE

**H019**

**H020**

## COMANDO CURSORE - SPOOL ACTUATION

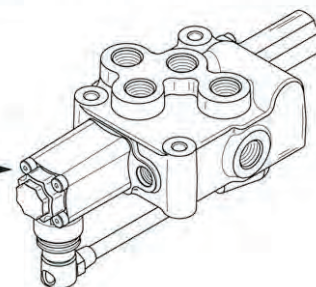
### DIMENSIONI - DIMENSIONS



\* Asta leva da ordinare separatamente  
\* Lever to be ordered separately

### COPPIE SERRAGGIO - CLAMPING TORQUE

Chiave 4 - 6 Nm  
Allen wrench 4 - 6 Nm



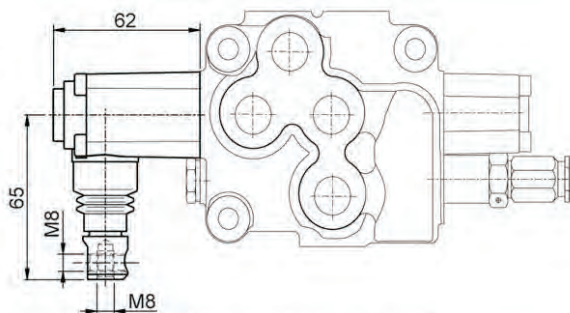
### DESCRIZIONE - DESCRIPTION

### SIGLA DI ORDINAZIONE - ORDERING CODE

Leva protetta ruotata all'interno con supportino ruotato di 180°  
*Protected lever 180° with attachment rotated 180°*

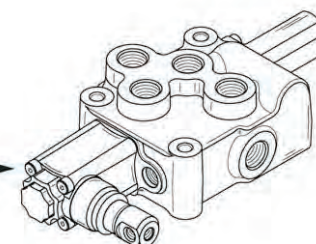
**H348**

### DIMENSIONI - DIMENSIONS



### COPPIE SERRAGGIO - CLAMPING TORQUE

Chiave 4 - 6 Nm  
Allen wrench 4 - 6 Nm



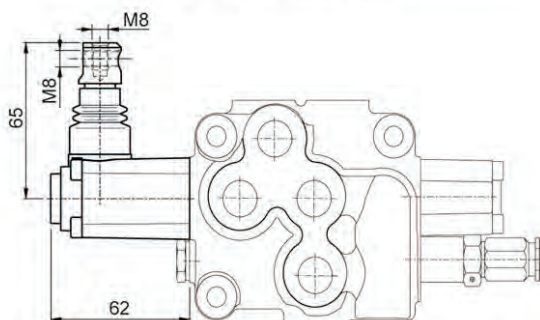
### DESCRIZIONE - DESCRIPTION

### SIGLA DI ORDINAZIONE - ORDERING CODE

Leva protetta ruotata di 90° lato entrata  
*Protected lever rotated 90° inlet side*

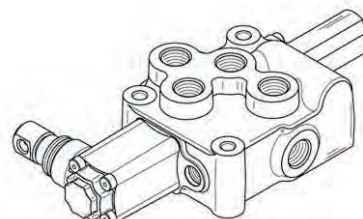
**H349**

### DIMENSIONI - DIMENSIONS



### COPPIE SERRAGGIO - CLAMPING TORQUE

Chiave 4 - 6 Nm  
Allen wrench 4 - 6 Nm



### DESCRIZIONE - DESCRIPTION

### SIGLA DI ORDINAZIONE - ORDERING CODE

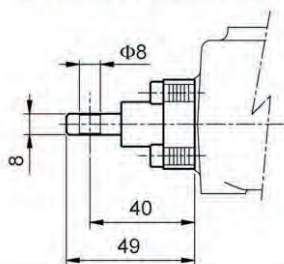
Leva protetta ruotata di 90° lato scarico  
*Protected lever rotated 90° outlet side*

**H350**



## COMANDO CURSORE - SPOOL ACTUATION

### DIMENSIONI - DIMENSIONS

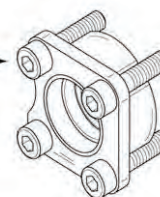


### DESCRIZIONE - DESCRIPTION

Predisposizione comando a cavo stelo tondo  
*Pin hole end*

### COPPIE SERRAGGIO - CLAMPING TORQUE

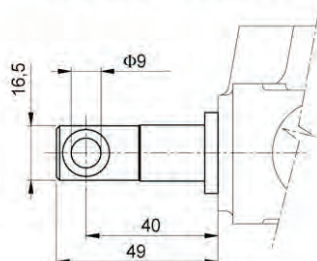
Chiave 4 - 6 Nm  
*Allen wrench 4 - 6 Nm*



### SIGLA DI ORDINAZIONE - ORDERING CODE

**H004**

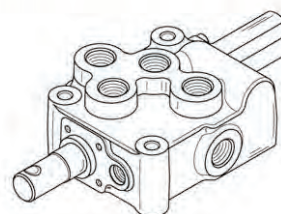
### DIMENSIONI - DIMENSIONS



### DESCRIZIONE - DESCRIPTION

Predisposizione comando a cavo stelo tondo  
*Pin hole end*

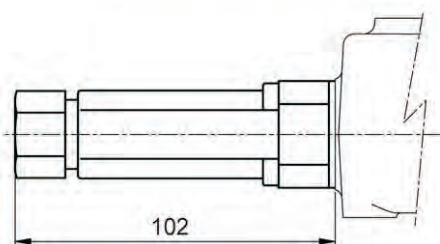
### COPPIE SERRAGGIO - CLAMPING TORQUE



### SIGLA DI ORDINAZIONE - ORDERING CODE

**H118**

### DIMENSIONI - DIMENSIONS

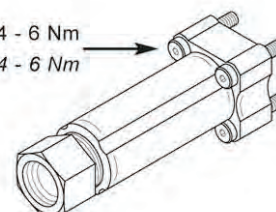


### DESCRIZIONE - DESCRIPTION

Predisposizione comando a cavo (aggancio rapido)  
*Prearrangement actuation cable (fast connection)*

### COPPIE SERRAGGIO - CLAMPING TORQUE

Chiave 4 - 6 Nm  
*Allen wrench 4 - 6 Nm*



### SIGLA DI ORDINAZIONE - ORDERING CODE

**H128**

**NOTA:** per maggiori informazioni consultare il catalogo dei comandi a distanza.

**NOTE:** for further informations refer to cable remote control catalogue.