

Part number:

**HYDROMA**  
HYDRAULICKÉ SYSTÉMY

**HIDROMA**  
SYSTEMS  
UKŁADY HYDRAULICZNE

**HYDROMA**  
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

## In line pressure compensated double-acting flow control valves

### FT 277/2

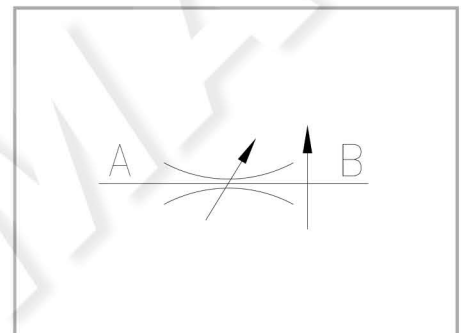
Compensated double-acting flow control valves available from 1/4" to 3/4" BSPP size, max. working pressure 320 Bar, adjustable oil flow rate from 5 to 75 Lt./min. ( depending on the size ) - Precision in compensation +/- 1% max

**Double-acting control**

**Pressure compensated In line or panel mounting**

**Carbon steel**

**Connections: F - F Female - Female**



## Technical information

### Technical description

Double-port pressure compensated control valves. They include two necks in series: • the first one with port section definable by an external control; • the second one with automatically variable section according to the counter-pressure variations on use. The choice of the adjustable neck situated upstream is the one that best ensures the precision of the valve towards fluid temperature variations. Regarding the structure of the valve, the following points must be underlined: • the rigorous symmetry of the internal components such as to prevent unforeseen perturbations of the static and dynamic balances; • the arrangement optimisation of internal spring controlling the intervention of the automatic throttling, at variable preload, with throttling fixed settings, useful to improve the behaviour at medium-high flow rates; • the geometry of the passages across which the flow is automatically throttled, designed to minimize the effect of the flow hydromechanics forces on the total balance of the moving element; • the accuracy of the machining which enabled to cancel any hysteresis effect of mechanical origin; • the original aesthetic feature, underlined by the particular form of the control knob; • the easiness to reset the flow value thanks to reference pointers. Moreover we believe important to underline the choice of the constructive solution fitting to the concept of "double valence", according to which, the central body, configured as a threaded cartridge and insertable in the two different bodies at the base or directly in standard modular units, creates the three traded versions: • FT 277/2 two-way • FT 277/5 two-way with check valve • threaded cartridge FT 287/2. This solution enables the user to eventually request the single modular components to be assembled according to the current need. Precision in compensation  $\pm 1\%$  of the flow rate.

### Materials

CORPO BASE / BASE BODY	Acciaio/Steel 11 S Mn Pb 37-UNI EN 10087
CORPO CARTUCCIA / CARTRIDGE BODY	Acciaio/Steel 35 S Mn Pb 10-UNI EN 10087
GRUPPO DI COMPENSAZIONE / COMPENSATING UNIT	Acciaio/Steel 39 Ni Cr Mo 3-UNI EN 10083
GUARNIZIONI / GASKETS	Di serie NBR - A richiesta FPM/Standard NBR-on demand FPM
ANELLI ANTIESTRUSIONE / ANTIEXTRUSION RINGS	PTFE
MANOPOLA TIPO MA / KNOB TYPE MA	Alluminio/Aluminum GD AlSi12- UNI EN AB 46100

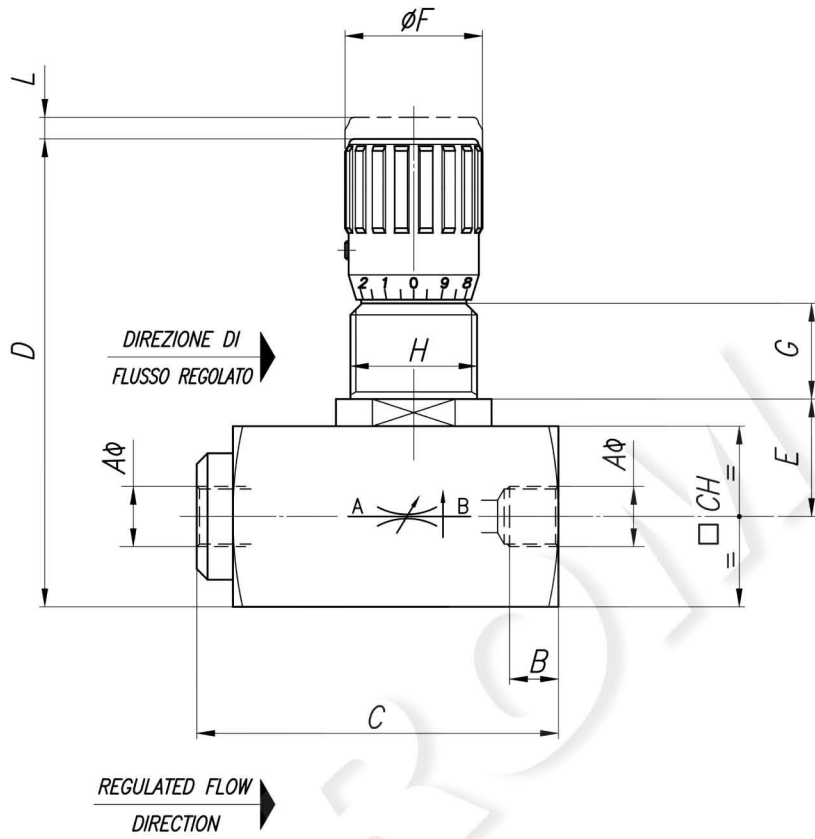
## Technical data

TIPO / TYPE	PRESSIONE ESERCIZIO BAR / WORKING PRESSURE BAR	MIN. ΔP DI FUNZIONAMENTO BAR / MIN. WORKING ΔP BAR	TEMPERATURA ESERCIZIO / WORKING TEMPERATURE	GRADO DI FILTRAZIONE μm / FILTRATION GRADE μm
14	320	7,5	-20°C/+70°C	25
38	320	10	-20°C/+70°C	25
12	320	12	-20°C/+70°C	25
34	320	15	-20°C/+70°C	25

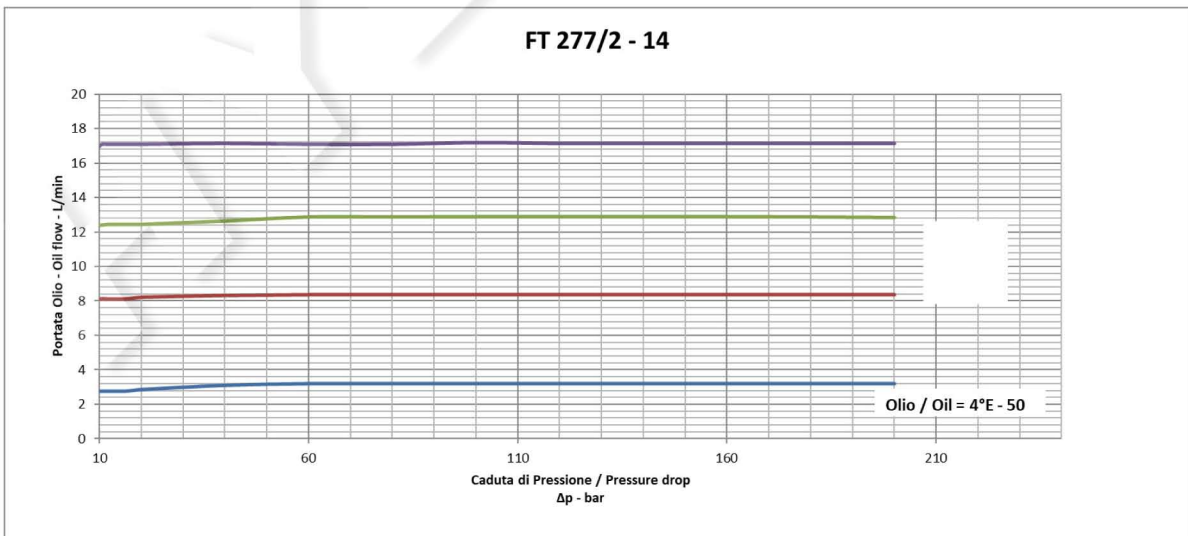
## Dimensional tables and drawings

TIPO / TYPE	A UNI 338	B	C	D	E	ØF
14	1/4" G	12,5	81	107	28	33
38	3/8" G	12,5	100	129,5	32	38
12	1/2" G	15,5	119	150	38	47
34	3/4" G	17	142	182,5	45	58

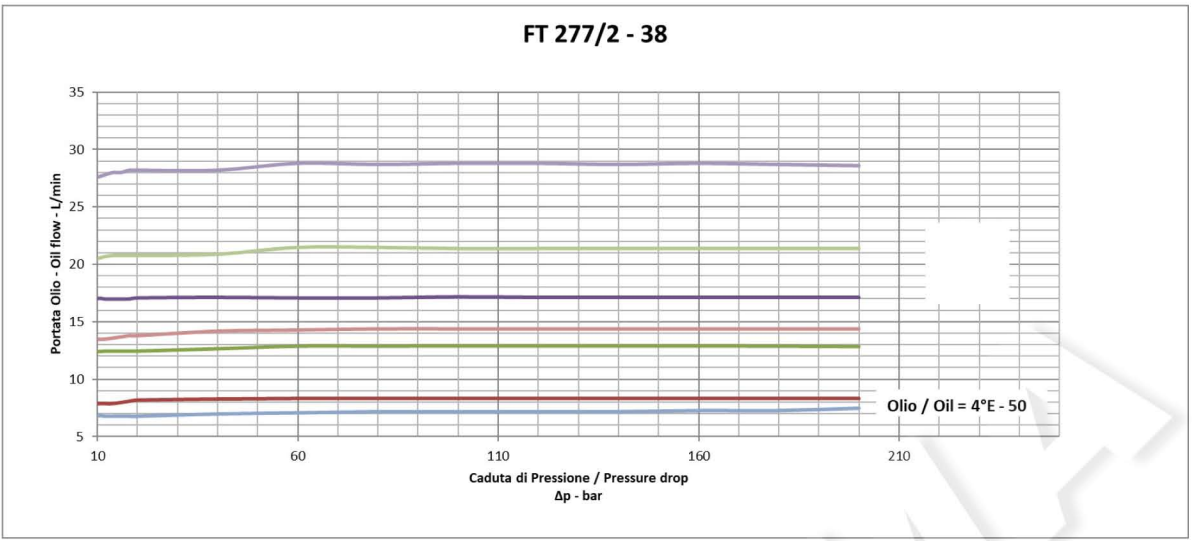
TIPO / TYPE	G	H	L	CH	PESO / WEIGHT KG
14	17	M30x1,5	4,5	45	1,300
38	27	M35x1,5	6	50	2,000
12	28,5	M40x1,5	6,5	60	3,300
34	35	M50x1,5	7,5	70	6,700



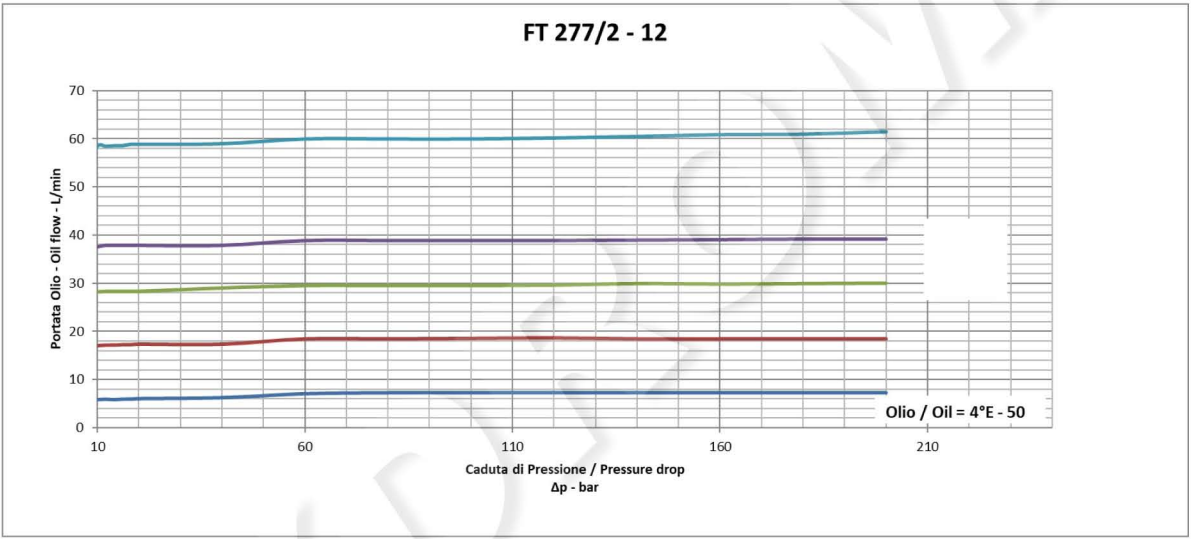
## Flow rate curves



FT 277/2 - 38



FT 277/2 - 12



FT 277/2 - 34

