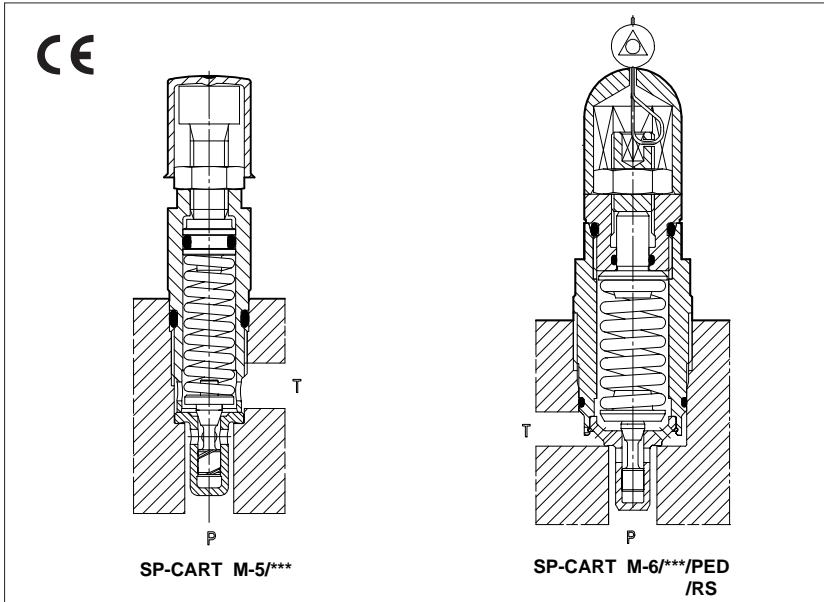


Cartridge relief valves type SP-CART

screw-in mounting



SP-CART are direct operated pressure relief valves for screw-in mounting. They are specifically designed with different flow/pressure features, to reduce and simplify the housing and to operate in oil hydraulic systems.

Also available in safety options with plumbed regulation:
/RS conforming to the Machine Directive (98/37/CE). The set pressure corresponds to the cracking pressure.
/PED conforming to PED Directive (97/23/CE). Set pressure at:
 SP-CART M-3: 1 l/min;
 SP-CART M-5: 20 l/min;
 SP-CART M-6: 30 l/min;
 SP-CART ARE-15: 50 l/min.
 For this version, the p, Q limits are shown in section 6.

Max flow: 100 l/min.
 Max pressure: 350 bar.

1 MODEL CODE

SP-CART	M6	/	350	/F	/*	**	/R
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Screw-in relief cartridges

Size:
M-3 = G1/2
M-5 = M20x1,5
M-6 = M33x1,5
ARE-15 = M32x1,5

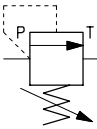
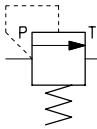
Setting:
 see section 2 for available setting

Options (1):
/R = reduced leakage for special application
/RS = as /R, plus conforming to 98/37/CE
/PED = as /R, plus conforming to 97/23/CE
/F = fixed pressure setting
/V = regulating handwheel
 not for RS, PED options:
/VF = regulating knob
/VNS = regulating knob with safety locking

Synthetic fluid
WG = water glycol
PE = phosphate ester
 Design number
 Only for RS, PED options:
p = required set pressure inside the pressure range

(1) For handwheel and knob features and availability, see section 7 and technical table K150

2 HYDRAULIC CHARACTERISTICS

Hydraulic symbol	 SP-CART SP-CART M-3 SP-CART M-5 SP-CART M-6		 SP-CART **/RS SP-CART **/PED SP-CART **/F																	
Valve model	SP-CART M-3				SP-CART M-5				SP-CART M-6				SP-CART ARE-15							
Setting	/R	/50	/100	/210	/350	/50	/100	/210	/350	/50	/100	/210	/350	/15	/50	/75	/150	/250		
	/RS									/220	/270	/320	/350							
	/PED	/50	/100	/210	/350	/100	/210	/350			/100	/210	/350				/150	/190	/230	
	/F					/200	/250	/280			/200	/250	/350				/200	/250	/280	
Pressure range [bar]	/R	4÷50	6÷100	7÷210	8÷350	2÷50	3÷100	5÷210	8÷350	2÷50	3÷100	10÷210	15÷350	2÷15	3÷50	4÷75	8÷150	8÷250		
	/RS																			
	/PED	4÷50	6÷100	7÷210	8÷350	25÷100	100÷210	210÷350			200÷250	250÷290	290÷350	310÷370				130÷170	170÷210	210÷250
	/F					200	250	280			200	250	350				200	250	280	
Max flow [l/min]		2,5				35				40				75						
	/RS, /PED, /F	2,5				50				60				100						

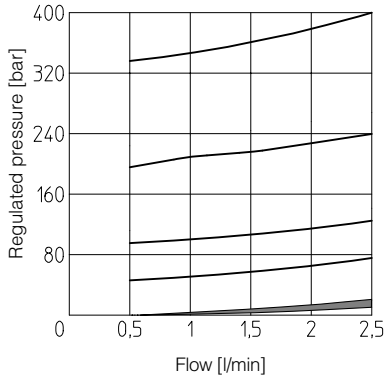
3 MAIN CHARACTERISTICS OF RELIEF VALVES TYPE SP-CART

Assembly position	Any position
Ambient temperature	-20°C + 70°C
Fluid	Hydraulic oil as per DIN 51524...535; for other fluids see section 7
Recommended viscosity	15÷100 mm ² /s at 40°C (ISO VG 15÷100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and β ₂₅ ≥ 75 (recommended)
Fluid temperature	T ≤ 80°C if T ≥ 60°C select /PE seals

4 REGULATED PRESSURE VERSUS FLOW DIAGRAMS based on fluid viscosity of 25 mm²/sec at 40°C

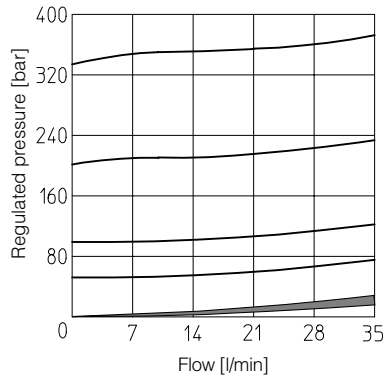
SP-CART M-3

■ Min. regulated pressure

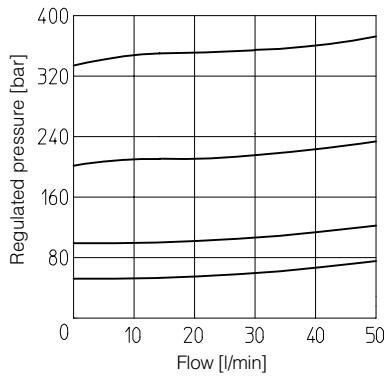


SP-CART M-5

■ Min. regulated pressure

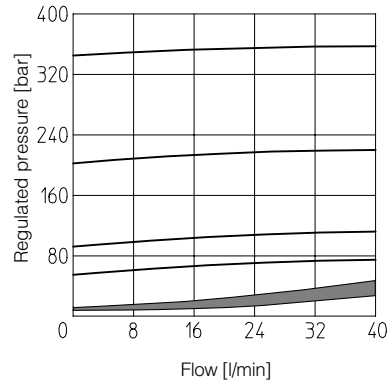


SP-CART M-5 **/F

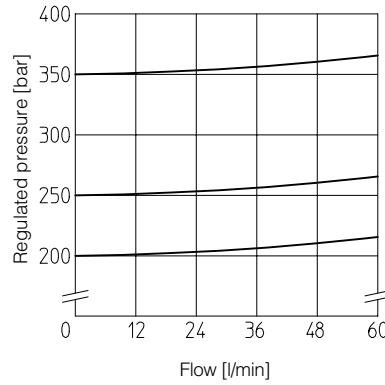


SP-CART M-6

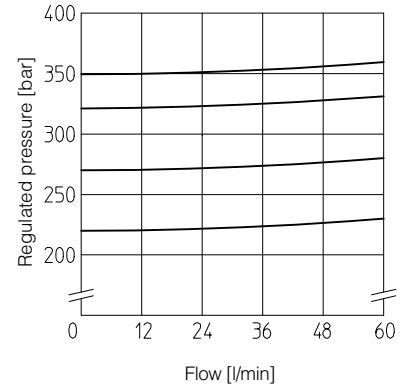
■ Min. regulated pressure



SP-CART M-6 **/F

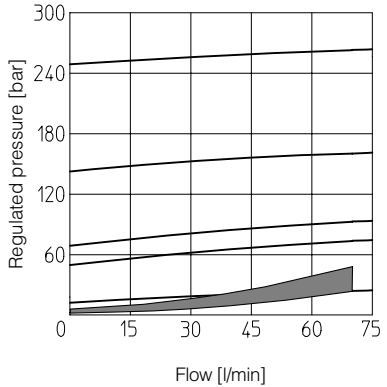


SP-CART M-6 **/RS

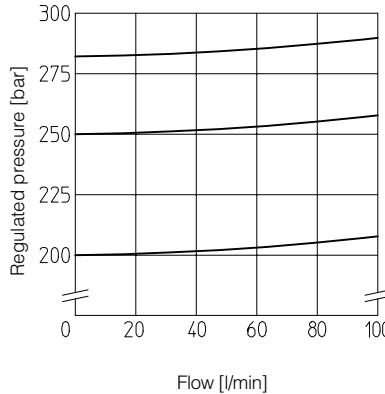


SP-CART ARE-15

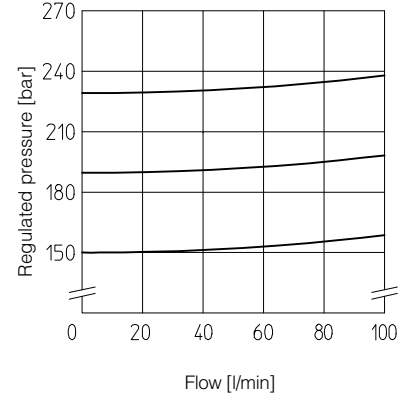
■ Min. regulated pressure



SP-CART ARE-15 **/F



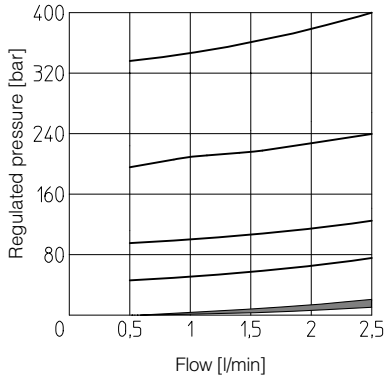
SP-CART ARE-15 **/RS



5 REGULATED PRESSURE VERSUS FLOW DIAGRAMS
based on fluid viscosity of 25 mm²/sec at 40°C

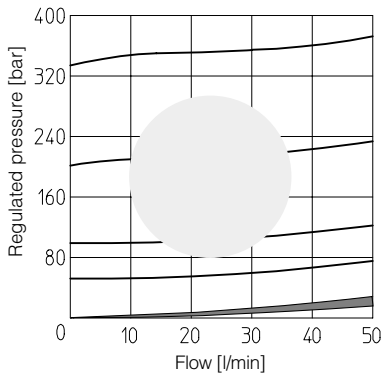
SP-CART M-3 **/PED

■ Min. regulated pressure



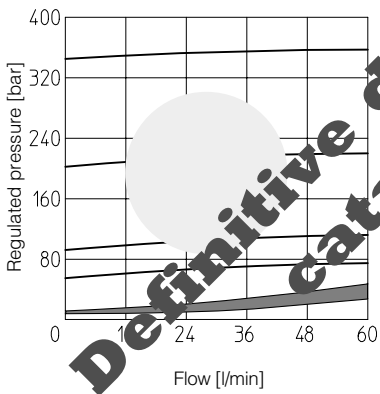
SP-CART M-5 **/PED

■ Min. regulated pressure



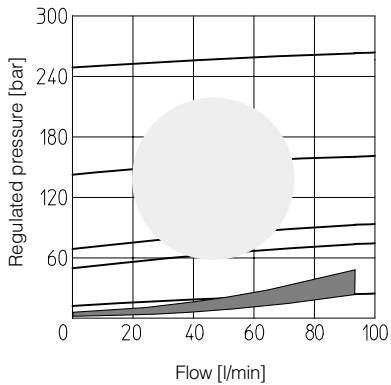
SP-CART M-6 **/PED

■ Min. regulated pressure



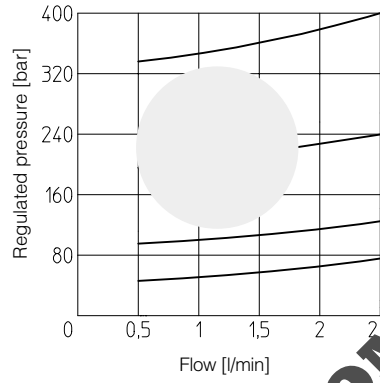
SP-CART ARE-15 **/PED

■ Min. regulated pressure

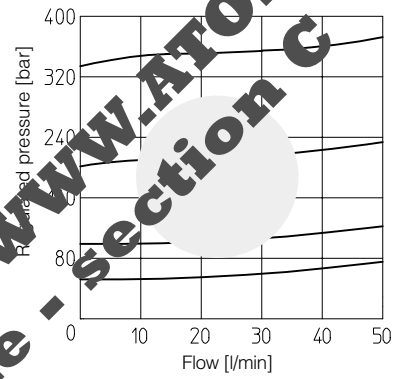


6 PERMISSIBLE RANGES
based on fluid viscosity of 25 mm²/sec at 40°C

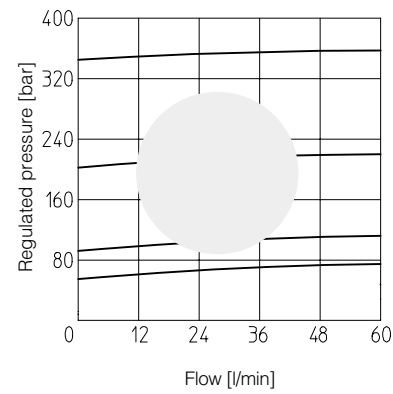
SP-CART M-3 **/PED



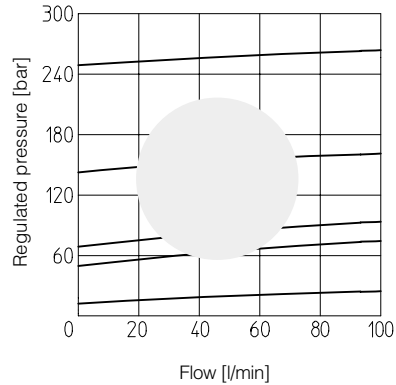
SP-CART M-5 **/PED



SP-CART M-6 **/PED

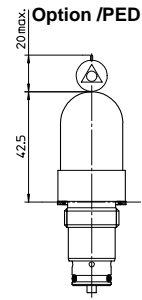
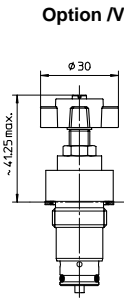
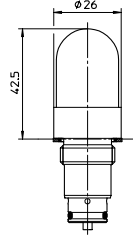
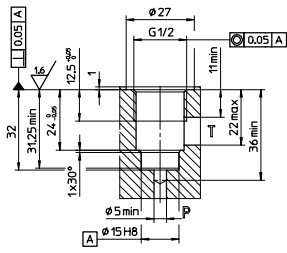


SP-CART ARE-15 **/PED

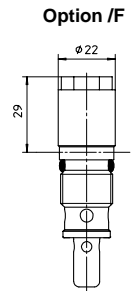
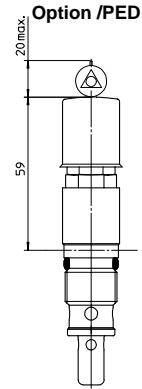
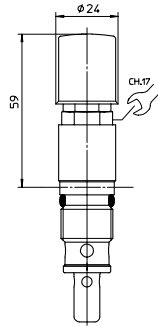
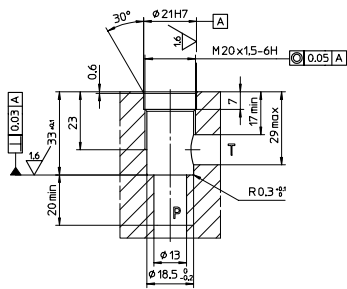


Definitive diagrams on WWW.ATOS.COM
catalogue on line - section C

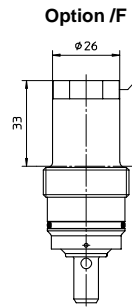
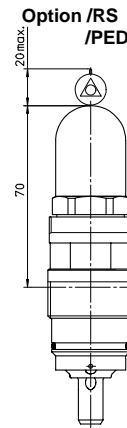
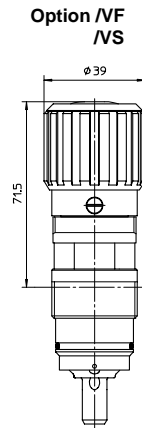
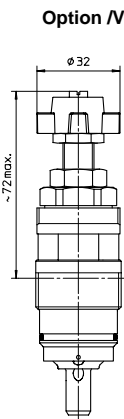
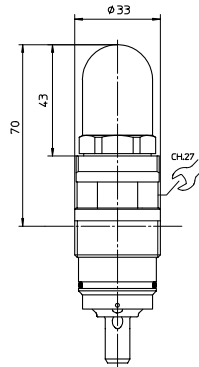
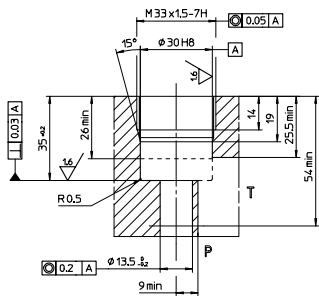
SP-CART M-3



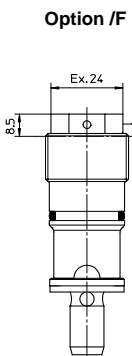
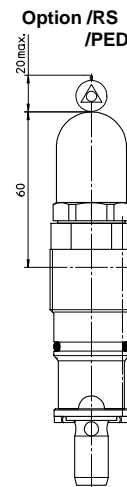
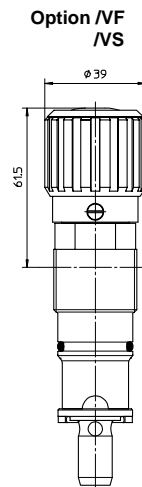
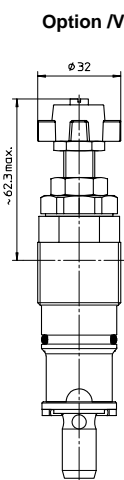
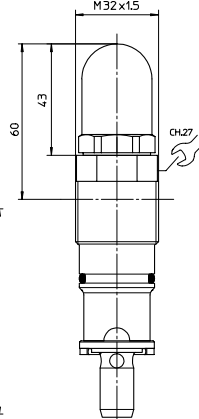
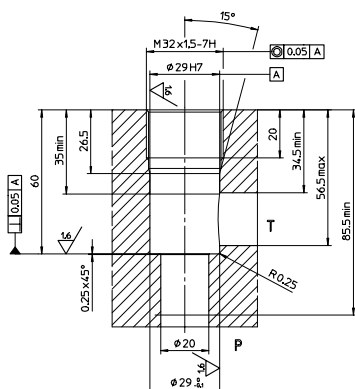
SP-CART M-5



SP-CART M-6



SP-CART ARE-15



Note
For handwheel features, see technical table K150