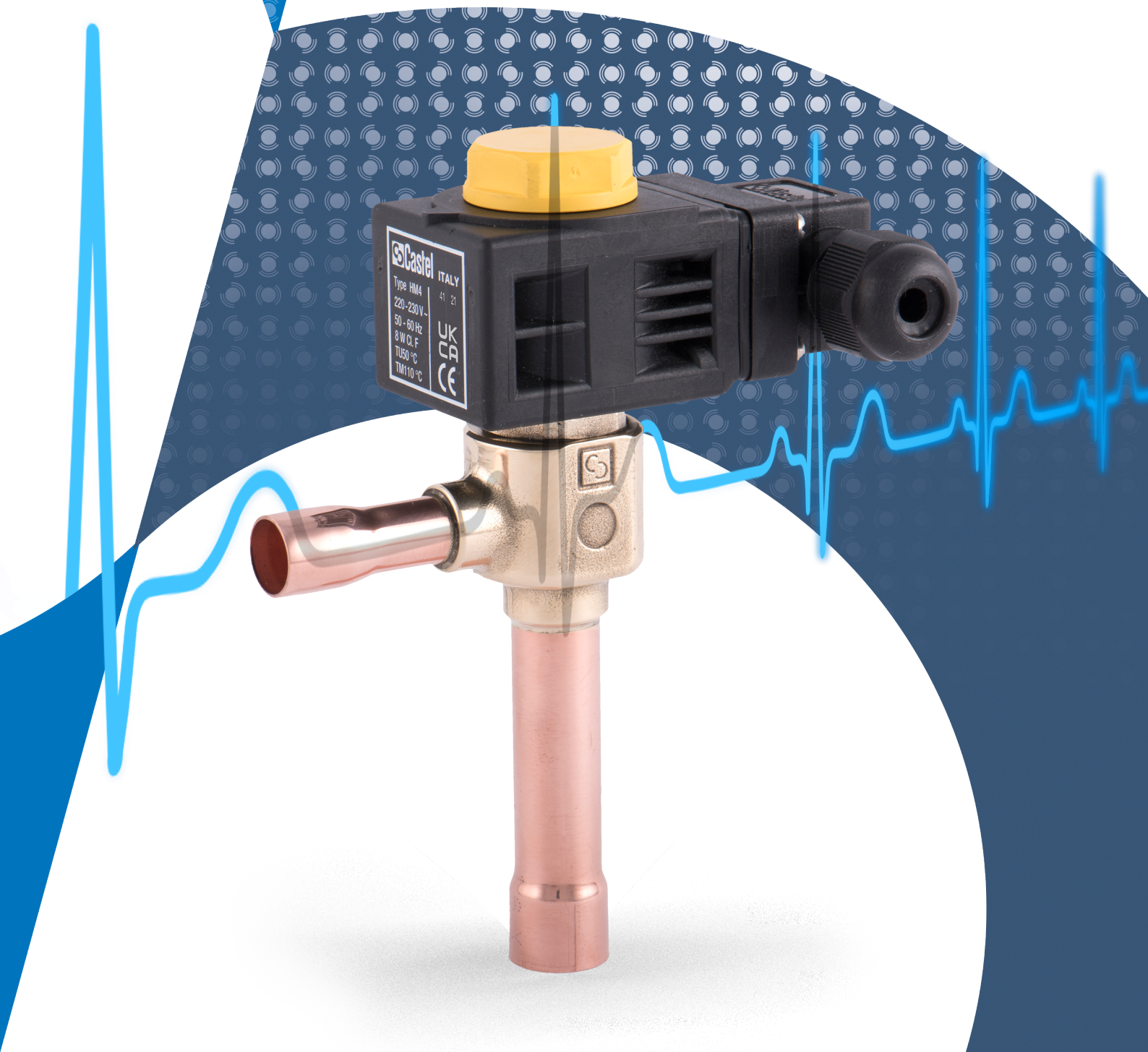
Castel
Italian technology

iCastel

PWM 2028

THE PULSING PART OF THE CIRCUIT



SHAPE OF TECHNOLOGY

Refrigeration and air conditioning is a fast-developing field where today's players need to be dynamic and competitive more than before. This is why Castel focuses on developing products with ever-improving performance, to be at your side in new applications and areas of use.

THE **SMARTEST** EXPANSION SOLUTION

The synergy of the expansion valve with all the components characterizes the refrigeration circuit, and makes it possible to maintain constant performance through all climatic changes throughout the year.
The series 2028 valves are a throttling device that receives liquid from the condenser and injects it into the evaporator, creating the necessary pressure drop across the expansion orifice. The valve can guarantee a hermetic seal when it is in the closed position, It also functions as a normally closed solenoid valve. This means you can install this valve in the system as the only valve in the liquid line before the evaporator, you can remove the standard solenoid valve.

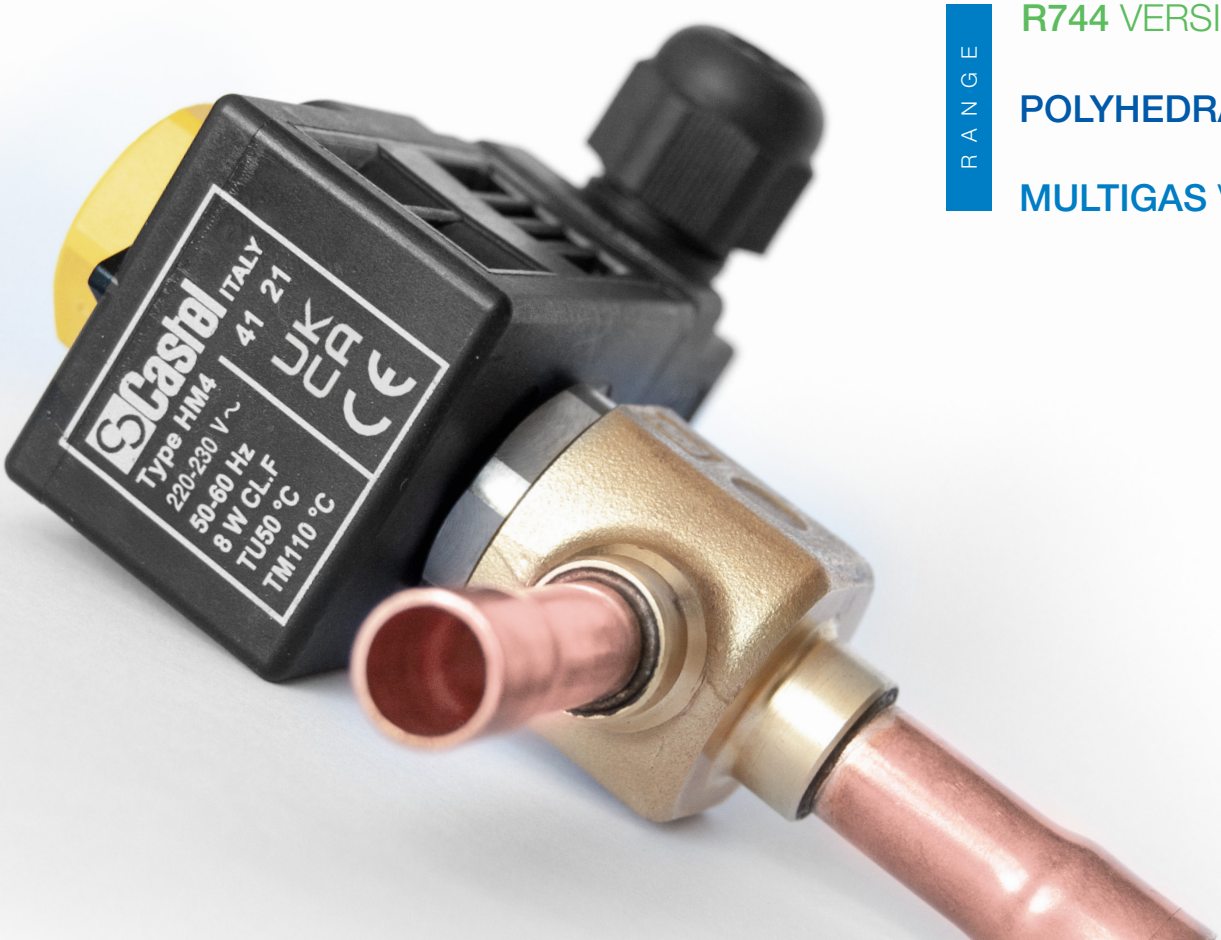
Simplicity and safety are the major qualities that distinguish this expansion valve, capable of operating up to 90 bar, as well as being able to operate with all kinds of refrigerants and with a differential pressure above 40 bar.

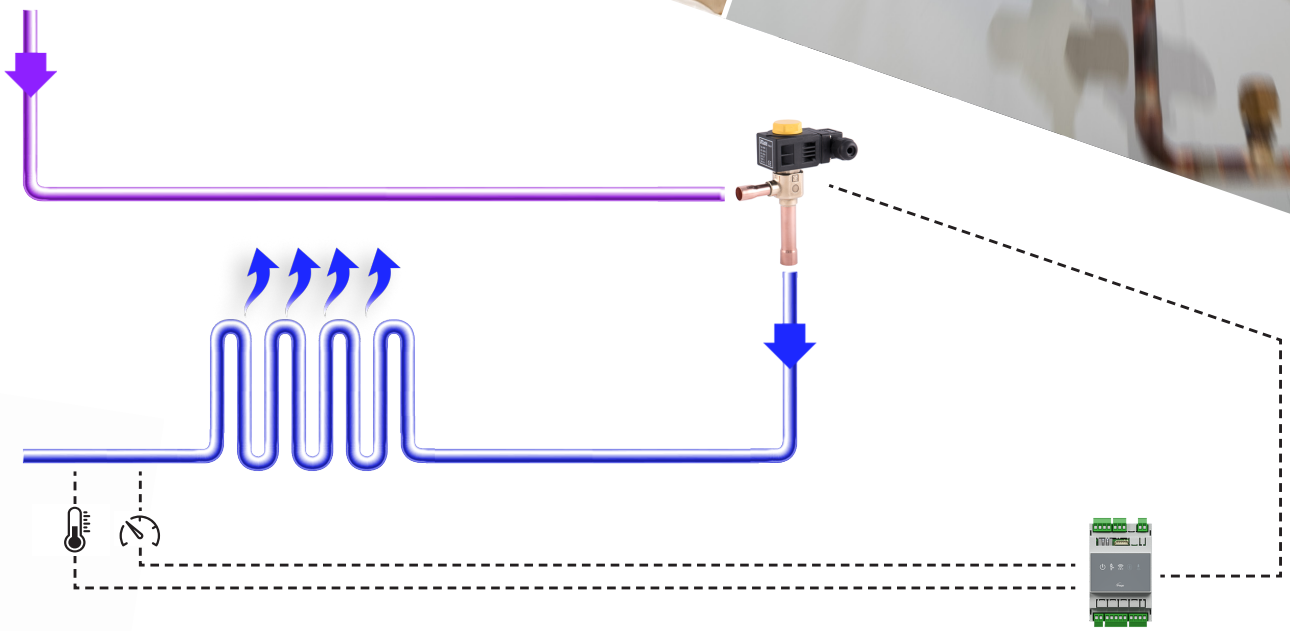
RANGE

R744 VERSION

POLYHEDRA VERSION

MULTIGAS VERSION



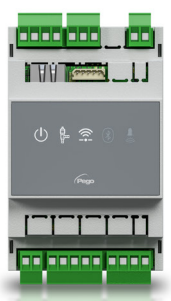


Pego

((NECTOR ((NEXUS

The collaboration from Castel's 2028 expansion valves with PEGO electrical panels and modular electronics, has generated a complete **plug & play solution**, that can work **with a lot of different system design**. Now, with a single component, we can manage the refrigeration system.

The wide availability of electronics with integrated expansion valve control makes it **easy to select and install the correct components**.



B01-2024-2028-EN

Part number		Connections		Orifice	Kv (M³/h)	Range	PS [bar]	MWP	TS [°C]		Approval
		In	out						Min	Max	
2028N/3		3/8"	1/2"	from 0 to 6	from 0,0027 to 0,113	Polyhedra	50 bar	-	-40°C	100°C	Art 4.3 PED
2028N/M10		10 mm	12 mm								
2028N/4		1/2"	5/8"	From 7 to 9	from 0,2 to 0,25						
2028N/M12		12 mm	16 mm								
2028E/3		3/8"	1/2"	from 0 to 6	from 0,0027 to 0,113	GoGreen	90 bar	-	-50°C	100°C	Art 4.3 PED
2028E/M10		10 mm	12 mm								
2028E/4		1/2"	5/8"	From 7 to 9	from 0,2 to 0,25						
2028E/M12		12 mm	16 mm								
2028C/3	NEW	3/8"	1/2"	from 0 to 6	from 0,0027 to 0,113	Multigas	90 bar	1035	-80°C	60°C	Art 4.3 PED
2028C/M10	NEW	10 mm	12 mm								
2028C/4	NEW	1/2"	5/8"	From 7 to 9	from 0,2 to 0,25						
2028C/M12	NEW	12 mm	16 mm								

Part number	Orifice Type	Orifice Size [mm]	REFRIGERANT														
			R134a	R32	R404A	R407C	R410A	R1234ze	R1234yf	R448A	R449A	R450A	R452A	R290	R600	R600a	R23	R744
9151#/R61	00	0,3	0,22	0,49	0,21	0,29	0,34	0,17	0,16	0,27	0,27	0,19	0,21	0,3	0,19	0,19	0,37	0,58
9150#/R63	01	0,5	0,79	1,75	0,74	1,03	1,21	0,62	0,58	0,98	0,97	0,69	0,76	1,06	0,68	0,70	1,5	2,09
9150#/R64	02	0,7	1,57	3,48	1,47	2,04	2,40	1,23	1,16	1,96	1,92	1,38	1,52	2,11	1,34	1,39	3,0	4,16
9150#/R65	03	0,8	1,86	4,13	1,75	2,42	2,84	1,46	1,37	2,32	2,27	1,63	1,80	2,51	1,59	1,64	3,52	4,93
9150#/R66	04	1,1	3,01	6,68	2,83	3,92	4,60	2,36	2,22	3,75	3,68	2,64	2,91	4,05	2,57	2,66	5,74	7,98
9150#/R67	05	1,3	5,15	11,43	4,84	6,71	7,88	4,05	3,80	6,42	6,30	4,52	4,98	6,94	4,40	4,55	9,77	13,65
9150#/R68	06	1,7	7,14	15,84	6,71	9,30	10,92	5,61	5,26	8,90	8,73	6,27	6,90	9,62	6,11	6,31	13,54	18,93
9150#/R69	07	2,3	11,26	24,98	10,58	14,66	17,22	8,84	8,30	14,03	13,77	9,88	10,88	15,17	9,63	9,95	21,45	29,85
9150#/R78	08	2,5	13,57	30,11	12,75	17,67	20,75	10,66	10,00	16,91	16,60	11,91	13,11	18,28	11,60	12,00	25,78	35,98
9150#/R79	09	2,7	15,05	33,39	14,14	19,60	23,02	11,82	11,09	18,76	18,40	13,21	14,54	20,27	12,87	13,31	28,57	39,90
			Rated capacities are based on: - Evaporating temperature Tevap = + 5 °C - Condensing temperature Tcond = + 32 °C - Refrigerant liquid temperature ahead of valve Tliq = + 28 °C															Rated capacities are based on: - Evaporating temperature Tevap = -25 °C - Condensing temperature Tcond = 0 °C - Refrigerant liquid temperature ahead of valve Tliq = -4 °C

iCastel®

ISO 14001

Castel has always been aware of environmental sustainability issues and gives its contribution to a cleaner environment, supplying the refrigeration and air conditioning industry with state-of-the-art and environment-friendly technology. With its commitment and steady research in its laboratories, Castel has developed a whole range of products using natural refrigerants, which reduce emissions to the minimum. The large range of products belonging to the Castel "GoGreen" line has been developed to be used in CO_2 (R744) filled systems.

CASTEL S.r.l.
Via Provinciale, 2-4 (C.P. 67)
20042 Pessano con Bornago (MI)
Tel. +39 02.957021
Fax +39 02.95741317
info@castel.it
castel.it