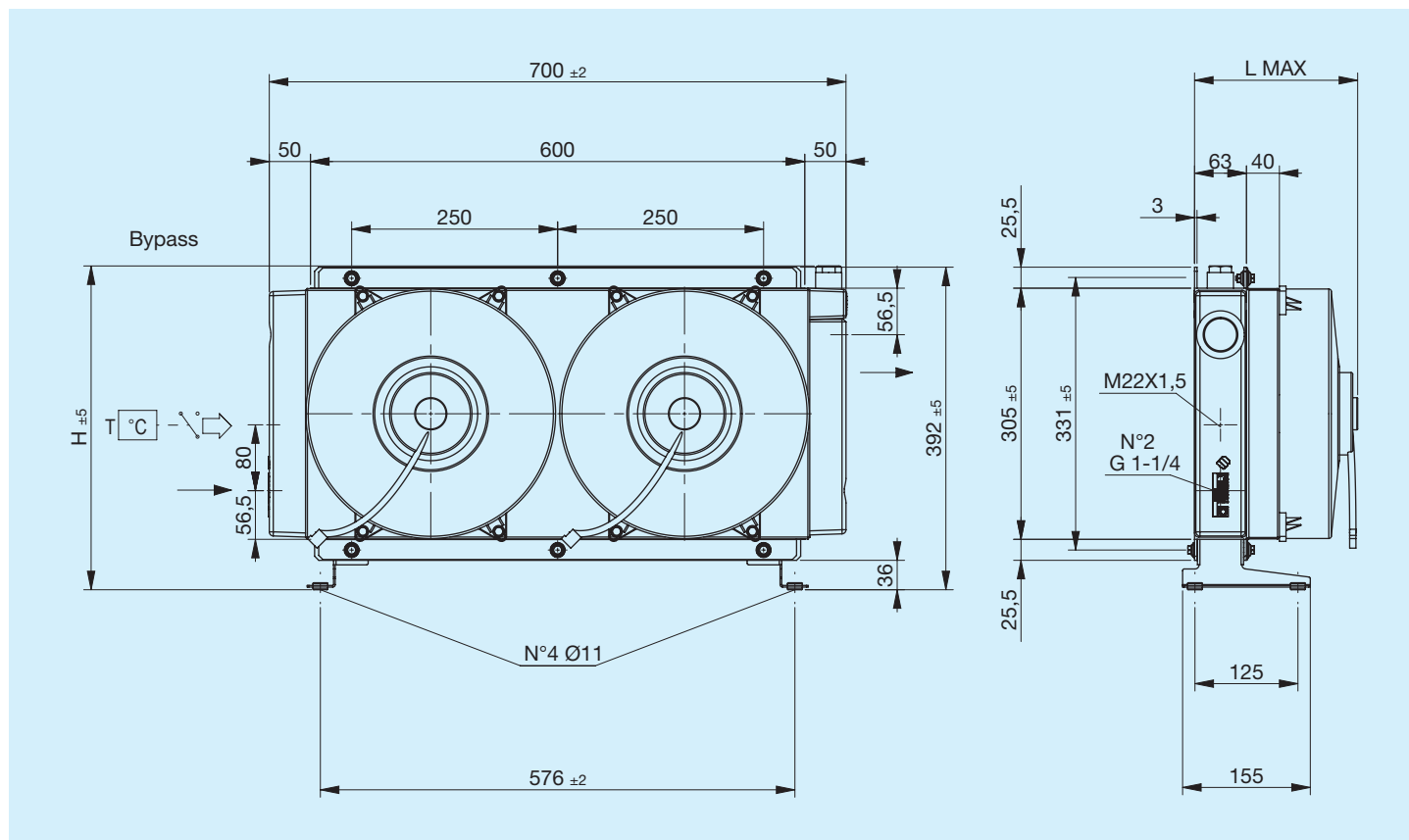


A48

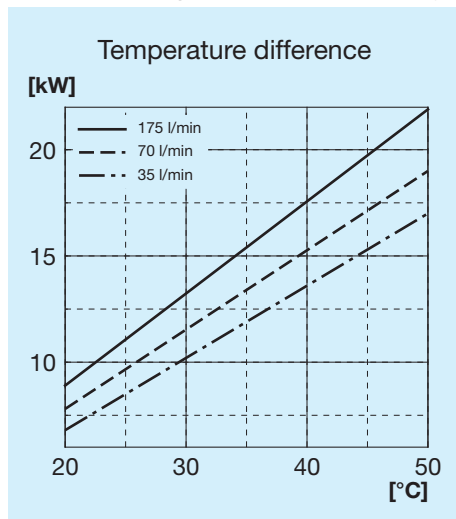


Before using the heat exchanger, carefully read the document entitled GENERAL OPERATING INSTRUCTIONS FOR HEAT EXCHANGER USE

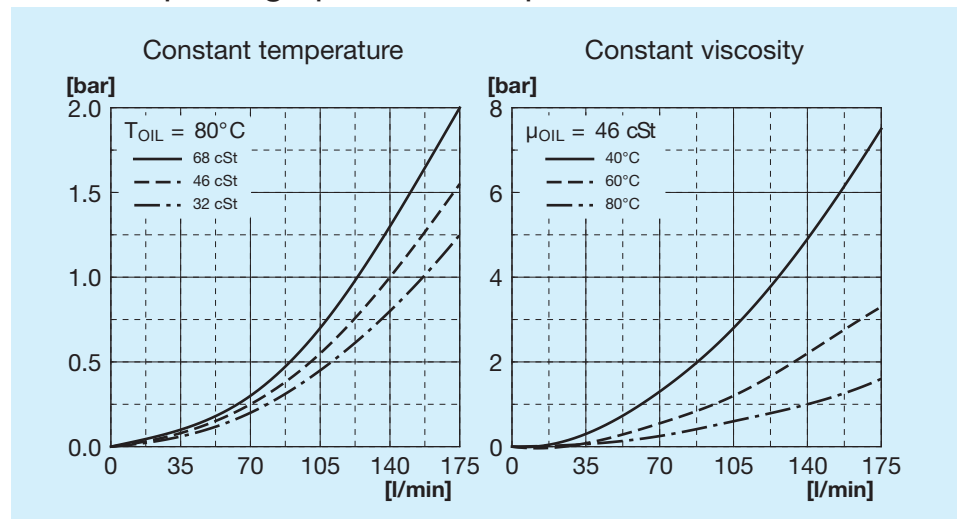


Code	Description	ΦFan mm	Air flow m³/h	Voltage V	Amperage A	L Max mm	H mm	Weight Kg	Capacity l
FR633213105	A48 2EAX 12V bypass T15 V.T. 3 bar 60°C	2X280	2X2350	12	2X12.5	200	391	16	3.2
FR633213106	A48 2ESX 12V bypass T15 V.T. 3 bar 60°C	2X280	2X2350	12	2X12.5	200	391	16	3.2
FR633211005	A48 2EAX 12V bypass T15 VNR 4.5 bar	2X280	2X2350	12	2X12.5	200	375	16	3.2
FR633211006	A48 2ESX 12V bypass T15 VNR 4.5 bar	2X280	2X2350	12	2X12.5	200	375	16	3.2
FR633213115	A48 2EAX 24V bypass T15 V.T. 3 bar 60°C	2X280	2X2500	24	2X7.2	200	391	16	3.2
FR633213116	A48 2ESX 24V bypass T15 V.T. 3 bar 60°C	2X280	2X2500	24	2X7.2	200	391	16	3.2
FR633211015	A48 2EAX 24V bypass T15 VNR 4.5 bar	2X280	2X2500	24	2X7.2	200	375	16	3.2
FR633211016	A48 2ESX 24V bypass T15 VNR 4.5 bar	2X280	2X2500	24	2X7.2	200	375	16	3.2
FR633210003	A48 2EAP 12V	2X280	2X1420	12	2X8.7	160	391	13.5	3.2
FR633210004	A48 2ESP 12V	2X280	2X1420	12	2X8.7	160	391	13.5	3.2
FR633210005	A48 2EAX 12V	2X280	2X2350	12	2X12.5	200	391	16	3.2
FR633210006	A48 2ESX 12V	2X280	2X2350	12	2X12.5	200	391	16	3.2
FR633210013	A48 2EAP 24V	2X280	2X1600	24	2X4.7	160	391	13.5	3.2
FR633210014	A48 2ESP 24V	2X280	2X1600	24	2X4.7	160	391	13.5	3.2
FR633210015	A48 2EAX 24V	2X280	2X2500	24	2X7.2	200	391	16	3.2
FR633210016	A48 2ESX 24V	2X280	2X2500	24	2X7.2	200	391	16	3.2

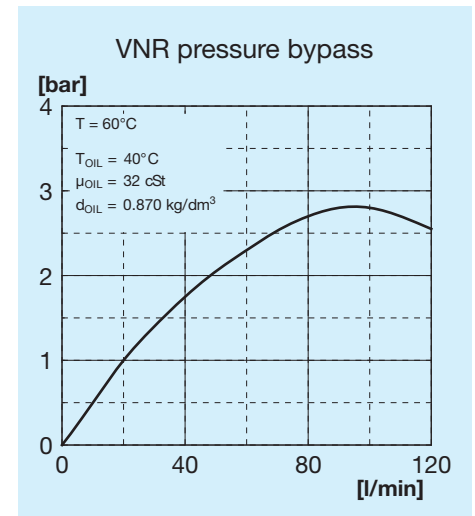
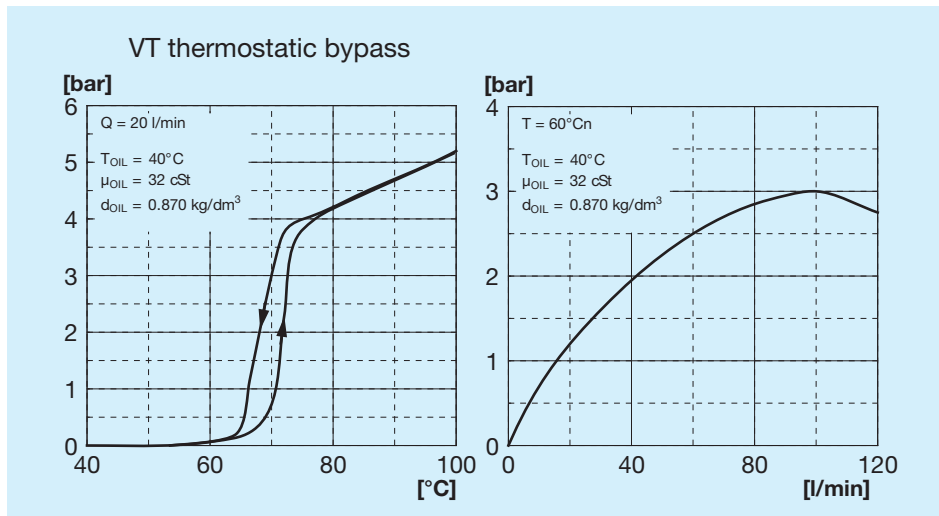
Heat exchange (thermal) capacity



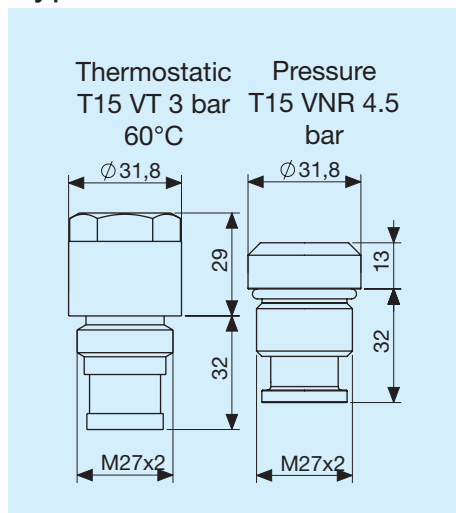
Radiator passage pressure drop



Bypass passage load loss

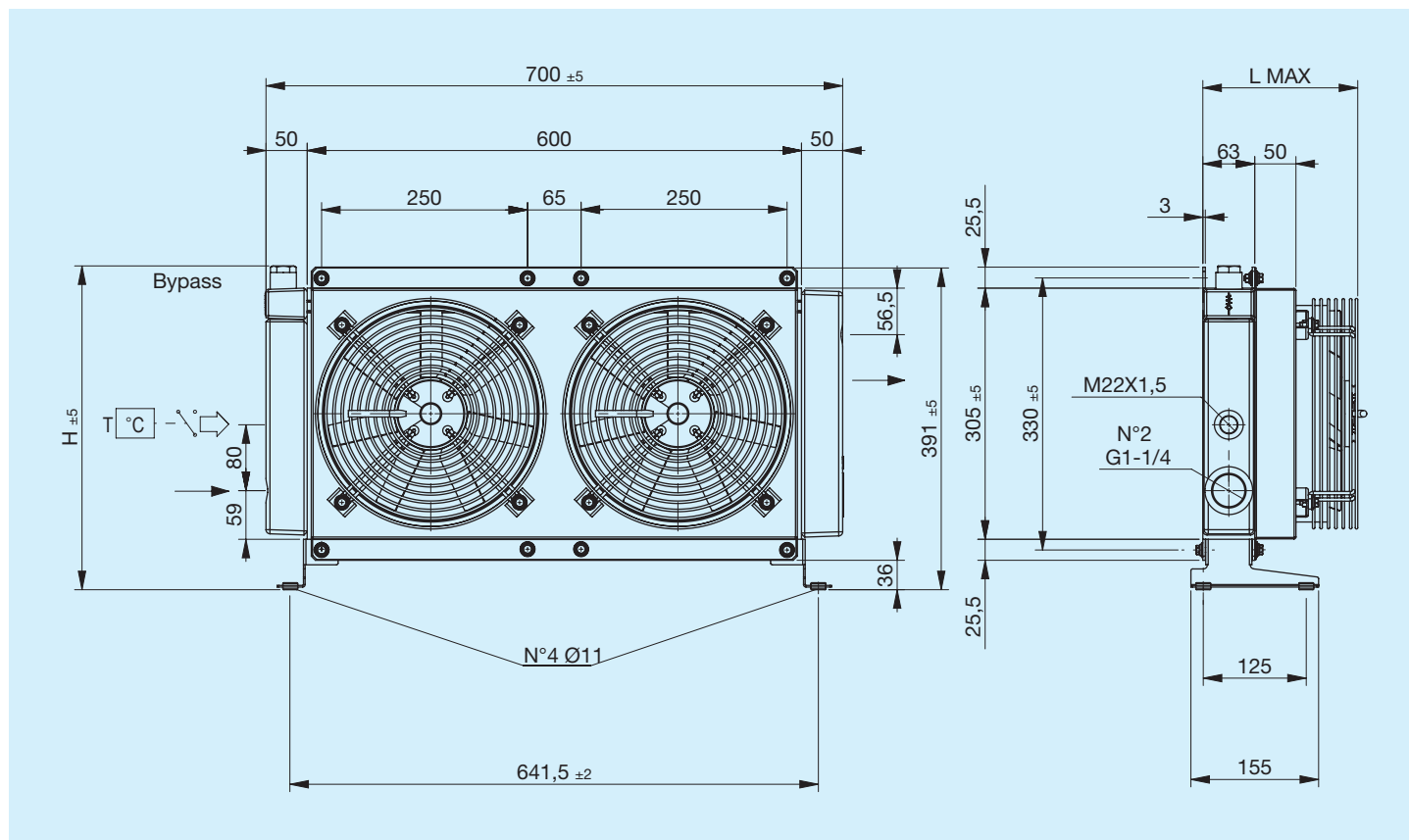


Bypass valves



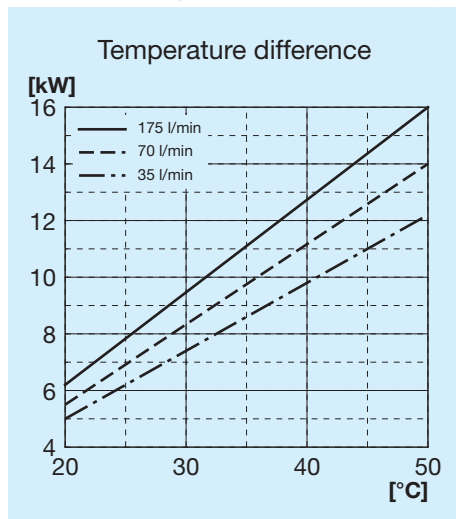
Legend

A22	Exchanger type
1E	1 Fan unit
AP	High power aspirating
SP	High power blower
AX	Extra high power aspirating
SX	Extra high power blower
12V	Fan unit voltage
24V	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60u00b0C
T15 VNR	Pressure bypass valve at 4.5 bar

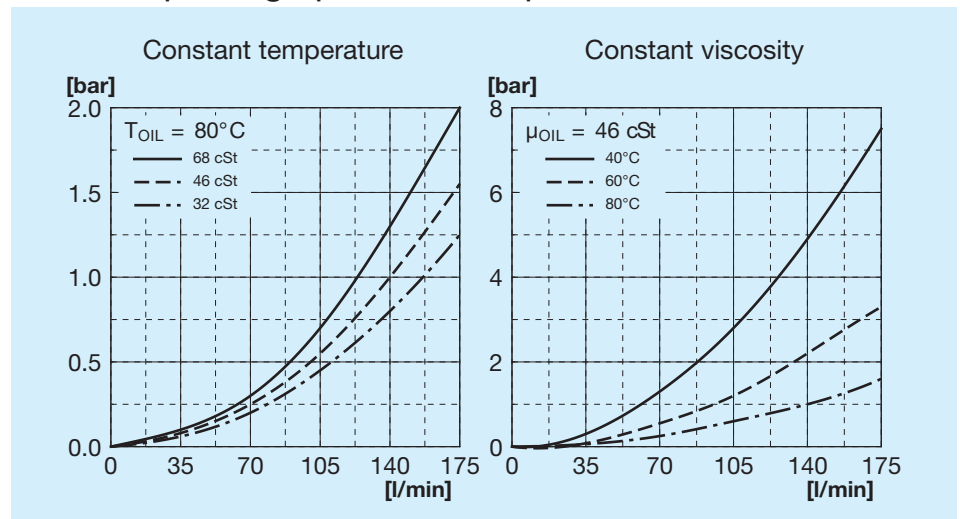


Code	Description	ΦFan mm	Power W	Frequen- cy Hz	Velocity min ⁻¹	IP Rating	L Max mm	H mm	Weight Kg	Capacity l
FR633213131	A48 2EA 230V bypass T15 V.T. 3 bar 60°C	2X250	160	50 60	2500 2600	44	188	391	14	3.2
FR633213132	A48 2ES 230V bypass T15 V.T. 3 bar 60°C	2X250	160	50 60	2500 2600	44	188	391	14	3.2
FR633211031	A48 2EA 230V bypass T15 VNR 4.5 bar	2X250	160	50 60	2500 2600	44	188	375	14	3.2
FR633211032	A48 2ES 230V bypass T15 VNR 4.5 bar	2X250	160	50 60	2500 2600	44	188	375	14	3.2
FR633213121	A48 2EA 400V bypass T15 V.T. 3 bar 60°C	2X250	160	50 60	2450 2550	44	188	391	14	3.2
FR633213122	A48 2ES 400V bypass T15 V.T. 3 bar 60°C	2X250	160	50 60	2450 2550	44	188	391	14	3.2
FR633211021	A48 2EA 400V bypass T15 VNR 4.5 bar	2X250	160	50 60	2450 2550	44	188	375	14	3.2
FR633211022	A48 2ES 400V bypass T15 VNR 4.5 bar	2X250	160	50 60	2450 2550	44	188	375	14	3.2
FR633210031	A48 2EA 230V	2X250	160	50 60	2500 2600	44	188	391	14	3.2
FR633210032	A48 2ES 230V	2X250	160	50 60	2500 2600	44	188	391	14	3.2
FR633210021	A48 2EA 400V	2X250	160	50 60	2450 2550	44	188	391	14	3.2
FR633210022	A48 2ES 400V	2X250	160	50 60	2450 2550	44	188	391	14	3.2

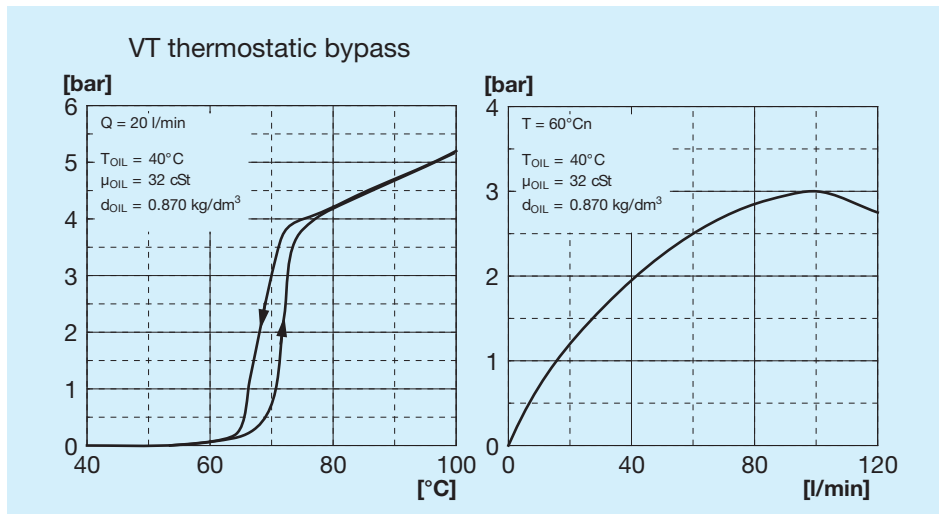
Heat exchange (thermal) capacity



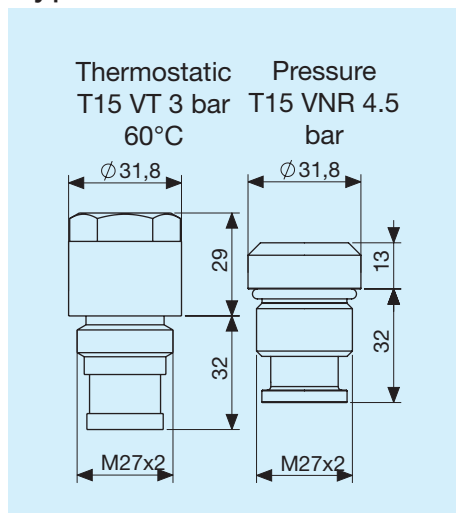
Radiator passage pressure drop



Bypass passage load loss

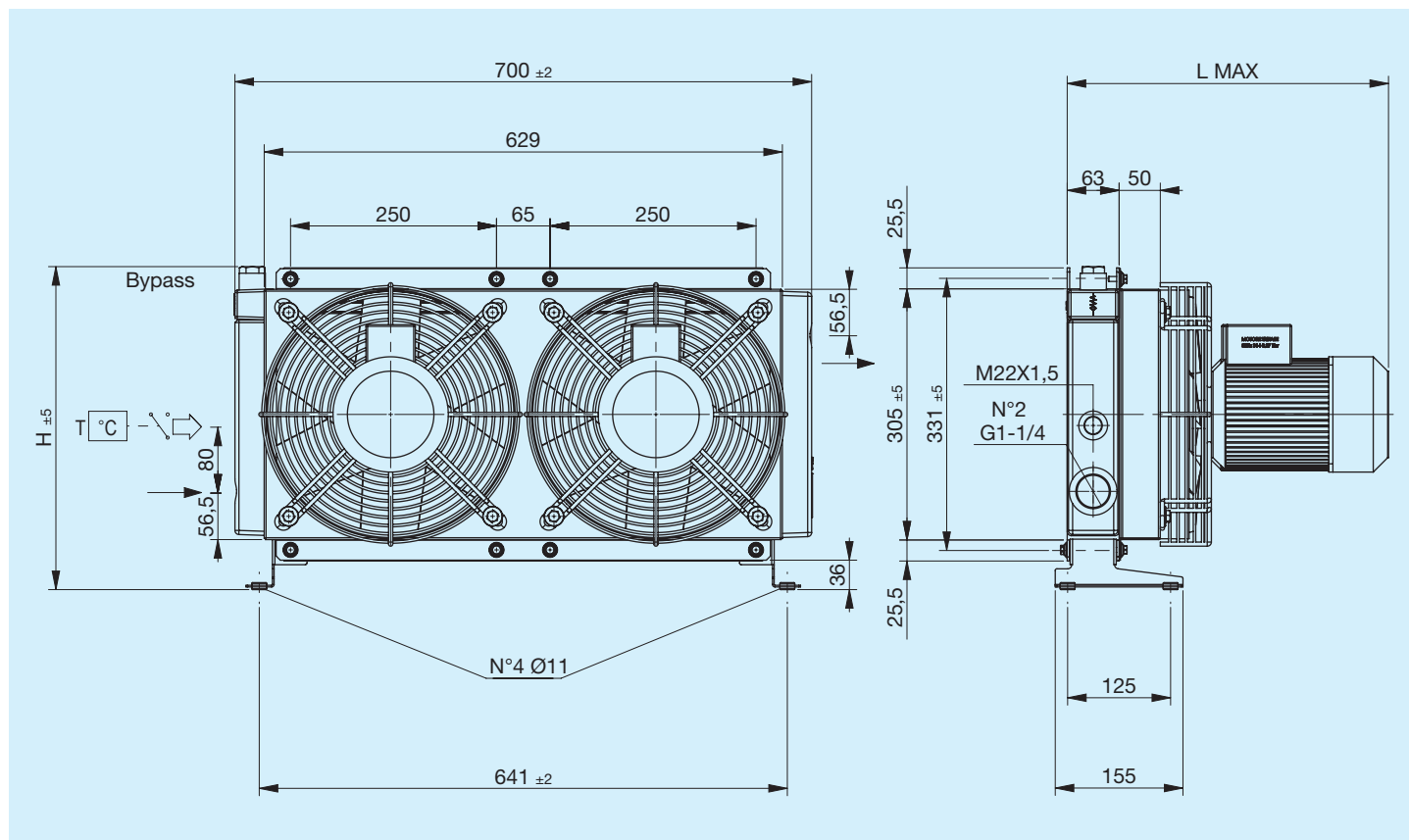


Bypass valves



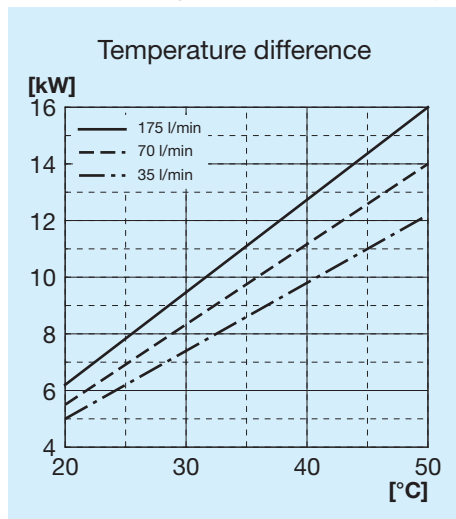
Legend

A22	Exchanger type
1E	1 Fan unit
AP	High power aspirating
SP	High power blower
AX	Extra high power aspirating
SX	Extra high power blower
12V	Fan unit voltage
24V	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60u00b0C
T15 VNR	Pressure bypass valve at 4.5 bar

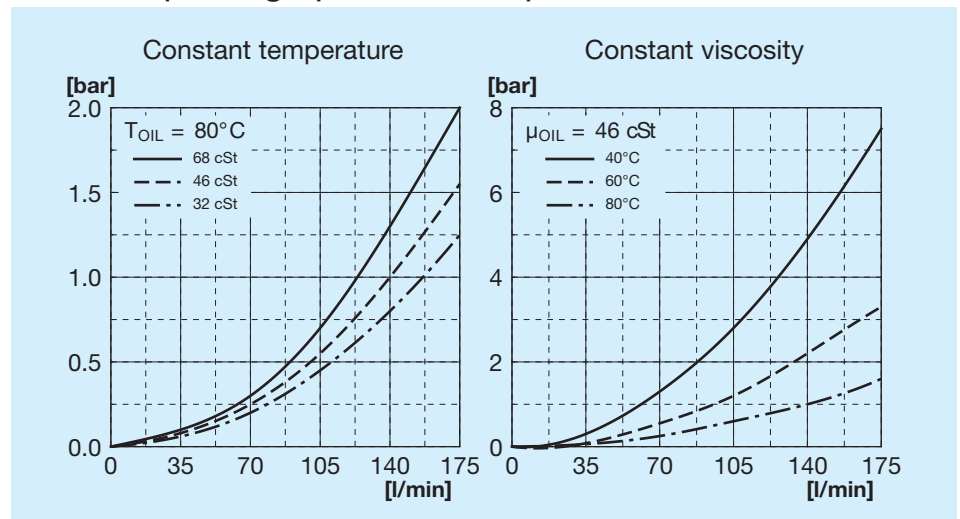


Code	Description	ΦFan mm	Power W	Frequen- cy Hz	Velocity min ⁻¹	IP Rating	L Max mm	H mm	Weight Kg	Capacity l
FR633213141	A48 2EA 220V-B14 bypass T15 V.T. 3 bar 60°C	2X290	370	50	2790	65	390	391	23	3.2
FR633211041	A48 2EA 220V-B14 bypass T15 V.T. 4.5 bar	2X290	370	50	2790	65	390	375	23	3.2
FR633213151	A48 2EA 380V-B14 bypass T15 V.T. 3 bar 60°C	2X290	370	50	2790	65	390	391	23	3.2
FR633213152	A48 2ES 380V-B14 bypass T15 V.T. 3 bar 60°C	2X290	370	50	2790	65	390	391	23	3.2
FR633211051	A48 2EA 380V-B14 bypass T15 V.T. 4.5 bar	2X290	370	50	2790	65	390	375	23	3.2
FR633211052	A48 2ES 380V-B14 bypass T15 V.T. 4.5 bar	2X290	370	50	2790	65	390	375	23	3.2
FR633210041	A48 2EA 220V-B14	2X290	370	50	2790	65	390	391	23	3.2
FR633210042	A48 2ES 220V-B14	2X290	370	50	2790	65	390	391	23	3.2
FR633210051	A48 2EA 380V-B14	2X290	370	50	2790	65	390	391	23	3.2
FR633210052	A48 2ES 380V-B14	2X290	370	50	2790	65	390	391	23	3.2

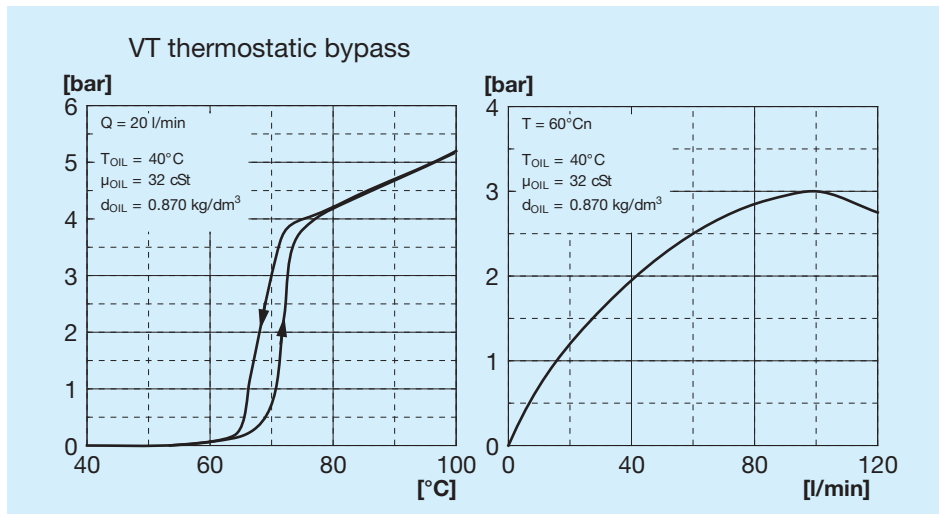
Heat exchange (thermal) capacity



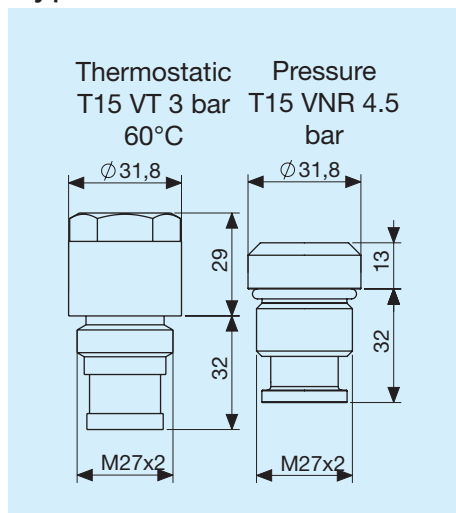
Radiator passage pressure drop



Bypass passage load loss

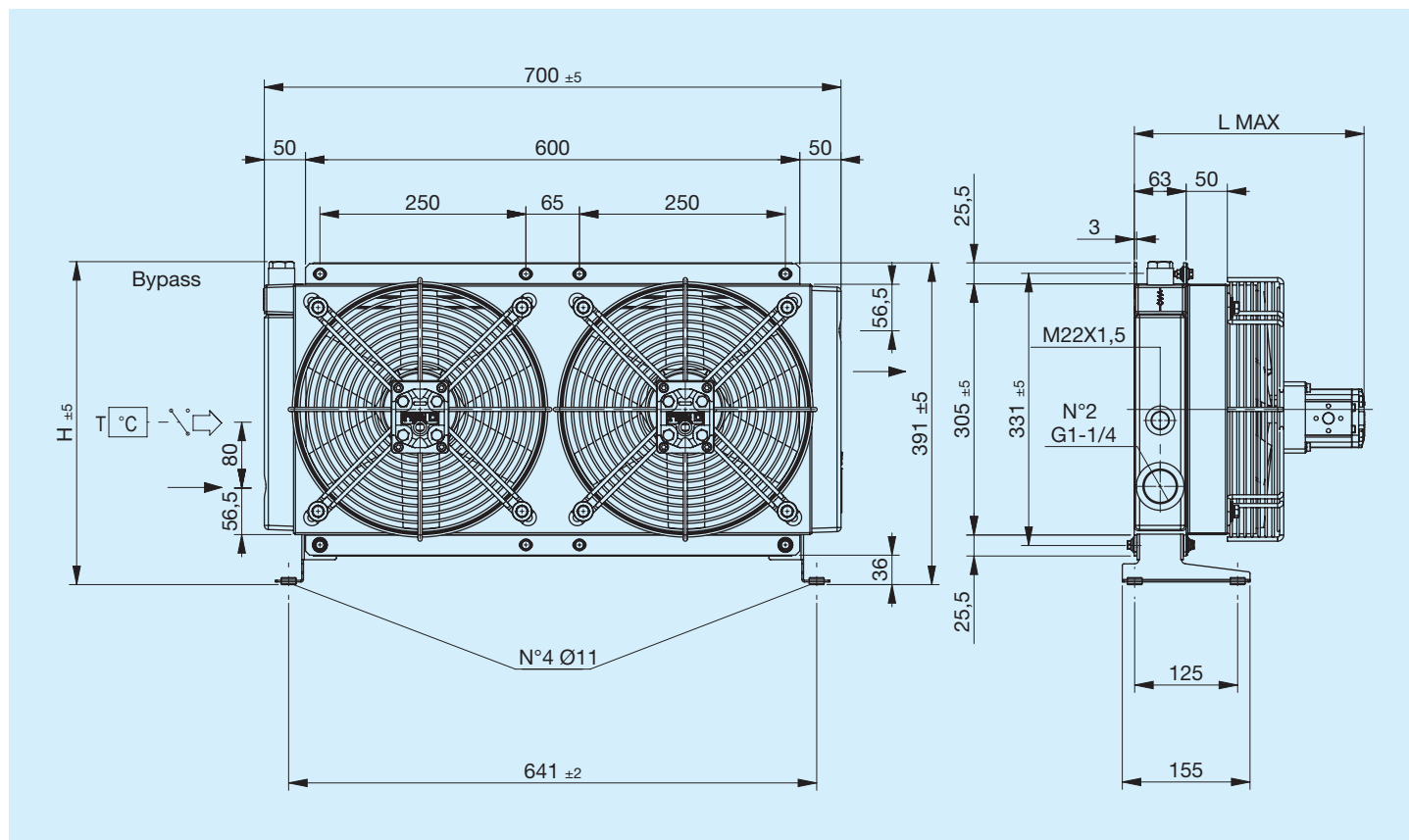


Bypass valves



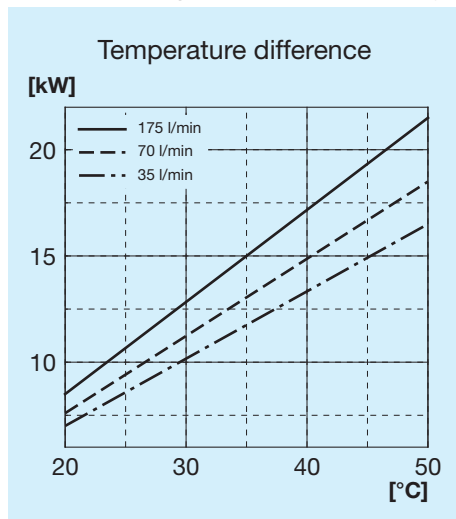
Legend

A22	Exchanger type
1E	1 Fan unit
AP	High power aspirating
SP	High power blower
AX	Extra high power aspirating
SX	Extra high power blower
12V	Fan unit voltage
24V	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60u00b0C
T15 VNR	Pressure bypass valve at 4.5 bar

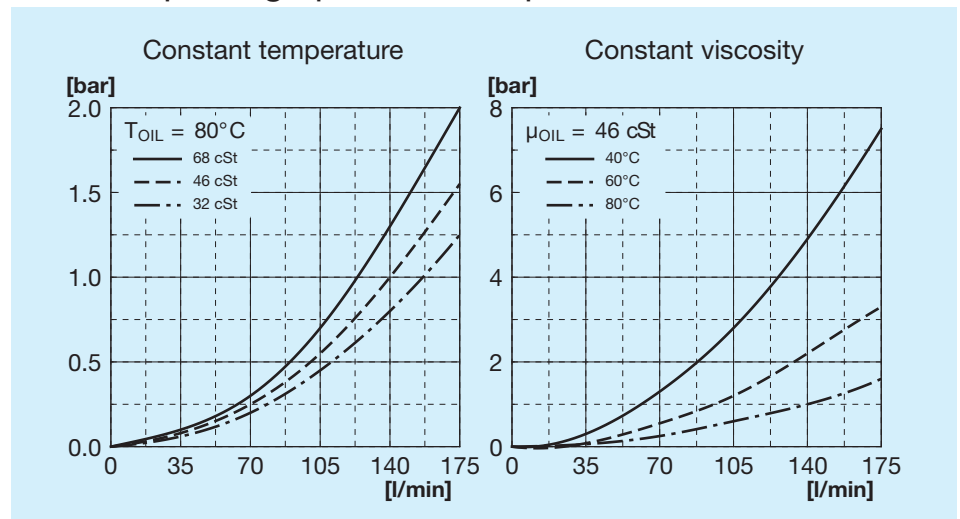


Code	Description	ΦFan mm	Displacement motors cm ³ /h	L Max mm	H mm	Weight Kg	Capacity l
FR634213103	A48 IA HYDR.MOT. GR1 bypass T15 V.T. 3 bar 60°C	2X290	6	285	391	19	3.2
FR634213104	A48 IS HYDR.MOT. GR1 bypass T15 V.T. 3 bar 60°C	2X290	6	285	391	19	3.2
FR634211003	A48 IA HYDR.MOT. GR1 bypass T15 VNR 4.5 bar	2X290	6	285	375	19	3.2
FR634211004	A48 IS HYDR.MOT. GR1 bypass T15 VNR 4.5 bar	2X290	6	285	375	19	3.2
FR634210003	A48 IA HYDR.MOT. GR1	2X290	6	285	391	19	3.2
FR634210004	A48 IS HYDR.MOT. GR1	2X290	6	285	391	19	3.2

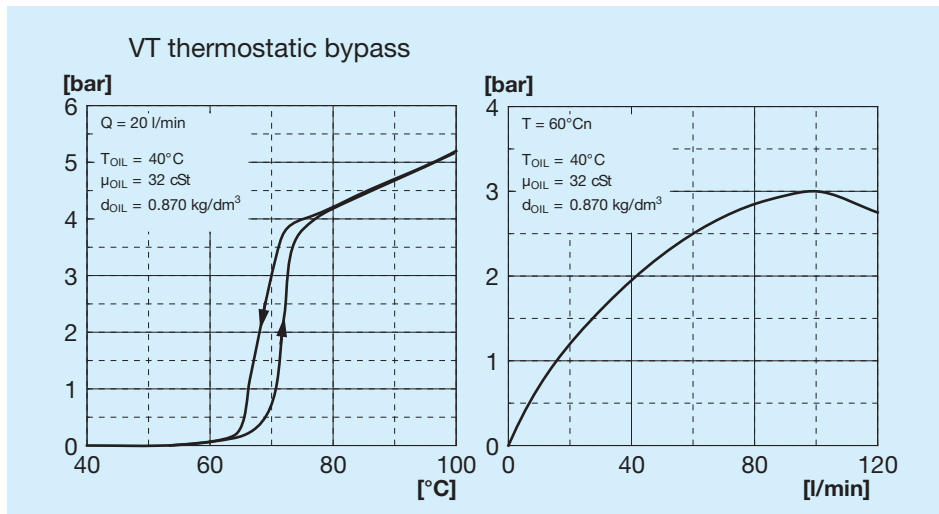
Heat exchange (thermal) capacity



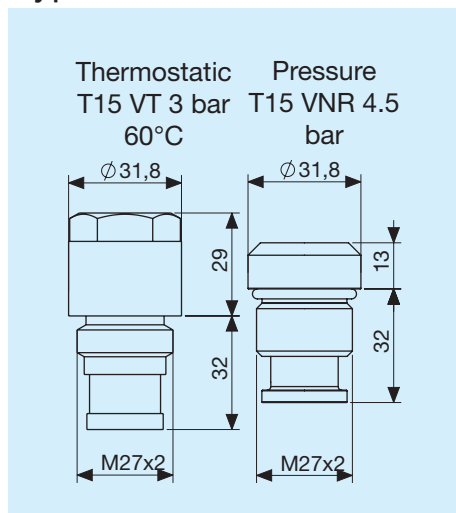
Radiator passage pressure drop



Bypass passage load loss



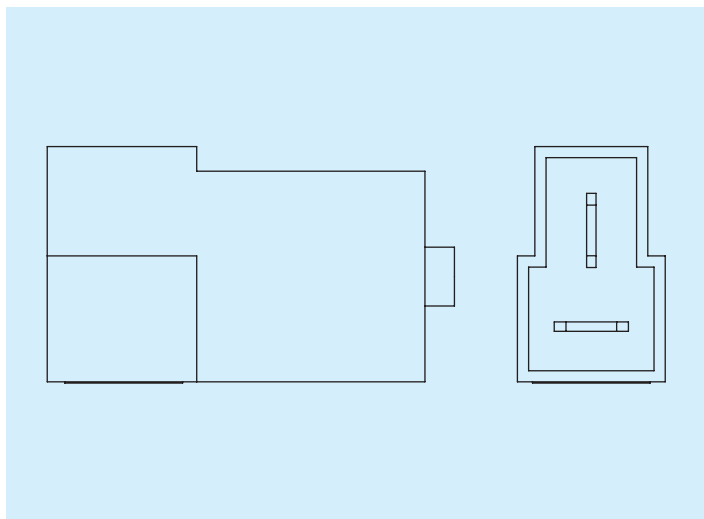
Bypass valves



Legend

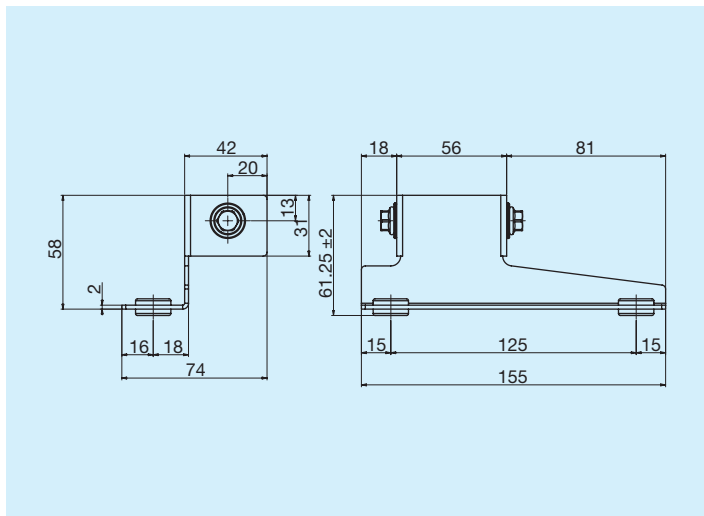
A22	Exchanger type
1E	1 Fan unit
AP	High power aspirating
SP	High power blower
AX	Extra high power aspirating
SX	Extra high power blower
12V	Fan unit voltage
24V	Fan unit voltage
T15 VT	Thermostatic bypass valve 3 bar 60u00b0C
T15 VNR	Pressure bypass valve at 4.5 bar

Connector

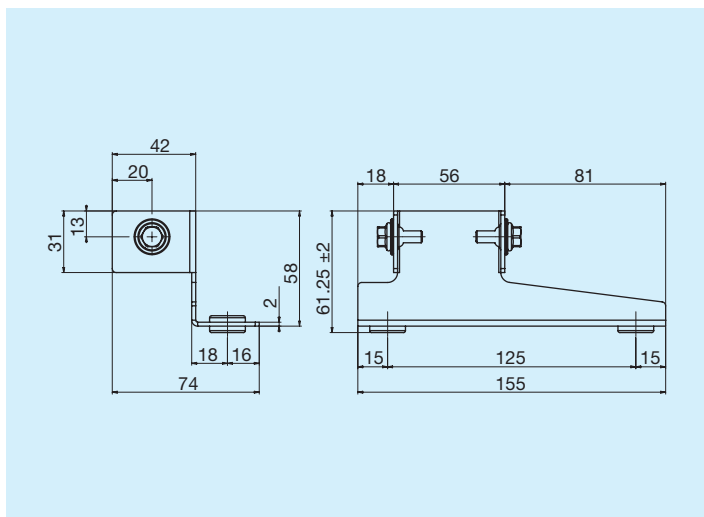


	Code
AMP connector	180908

Left supporting foot

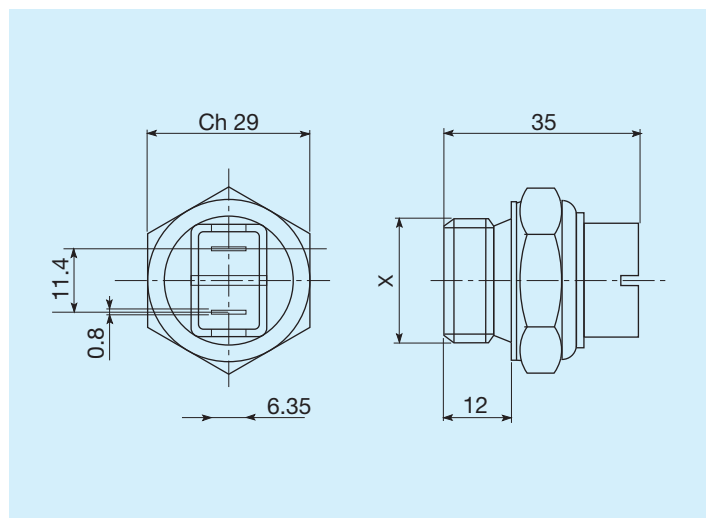


	Code
Left supporting foot	FR290000011



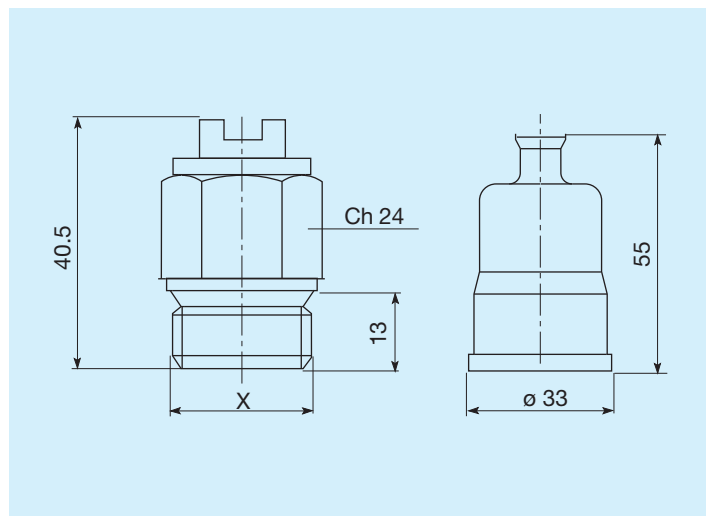
	Code
Right supporting foot	FR290000012

Thermostats



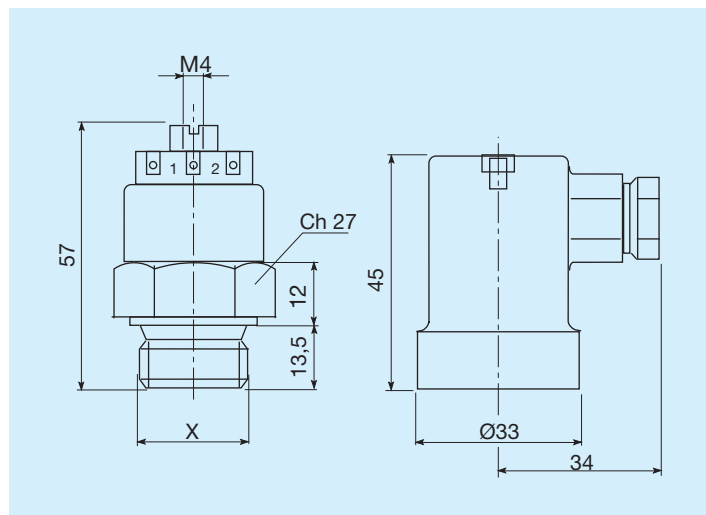
Trigger temperature °C		Code
45 - 35	M22x1.5	FR 361104535
60 - 50	M22x1.5	FR 361106050
80 - 70	M22x1.5	FR 361108070
82 - 68	M22x1.5	FR 361108268
85 - 76	M22x1.5	FR 361108576

IP54 protected thermal switch



Trigger temperature °C		Code
45 - 35	M22x1.5	FR 361124535
50 - 40	M22x1.5	FR 361125040
60 - 50	M22x1.5	FR 361126050
70 - 60	M22x1.5	FR 361127060
80 - 70	M22x1.5	FR 361128070

IP65 protected thermal switch



Trigger temperature °C		Code
45 - 35	M22x1.5	FR 361154535
47 - 36	M22x1.5	FR 361155040
60 - 50	M22x1.5	FR 361156050
80 - 70	M22x1.5	FR 361158070