

Technical data sheet

Relay 854

Description

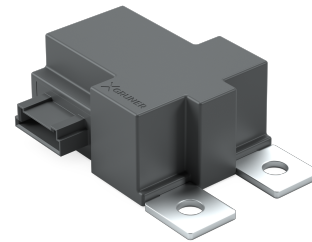
Contactor relay for up to 120 A continuous current with high switching capacity for short circuit currents up to 3,000 A and high shock resistance.

The relay is available in a monostable and bistable version. In order to limit the coil heating, the monostable version must be controlled by PWM or current control after switching on with lower power. The bistable version has an integrated permanent magnet, thus no further energy is required to hold the switching state. The control pulse is only applied to the coil for a few milliseconds, thus the self-heating of the coil is negligible.

Both versions are equipped with an integrated contact monitoring (monitoring pins). Here, a signal can be queried directly at the load connections via two pins.

Furthermore, the relay has an integrated temperature sensor at the load contacts. This is led to the outside via the plug. The measured value can be evaluated via separate electronics.

The design and manufacture of the relays comply with the IEC 61810-1 standard.



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Coil data (monostable)	Rated voltage	12 - 48 VDC
	Rated power	52 W
	Min. holding current	12V: 0.50 A / 48V: 0.12 A
	Max. coil temperature	155 °C
	Operate time / release time	< 15 ms
Coil data (bistable)	Rated voltage	tbd.
	Rated power	tbd.
	Pulse to set (latching)	tbd.
	Operate time / release time	tbd.
Contact data	Max. contact arrangement	
	Contact material	AgSnO ₂
	Rated switching voltage	120 VDC
	Max. switching voltage	300 VDC (@120A)

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Contact data	Rated switching current	120 A
	Continuous current at 45°C (25 mm²)	120 A
	Electrical endurance	10 ⁴
	Short-time overcurrent (100 ms)	3000 A
	Break current (100V)	3000 A
	Break current (150V)	2000 A
	Mechanical life	5x10 ⁵
	Current carrying monitoring at 65°C	2 A
	Ambient temperature	-40 ... +85 °C
	Protection class	IP 6K4K
	Mech. shock, half sine, 6 ms (± x, y, z)	500 m/s ²
	Dimensions	71 x 50 x 26 mm
	Weight	140 g

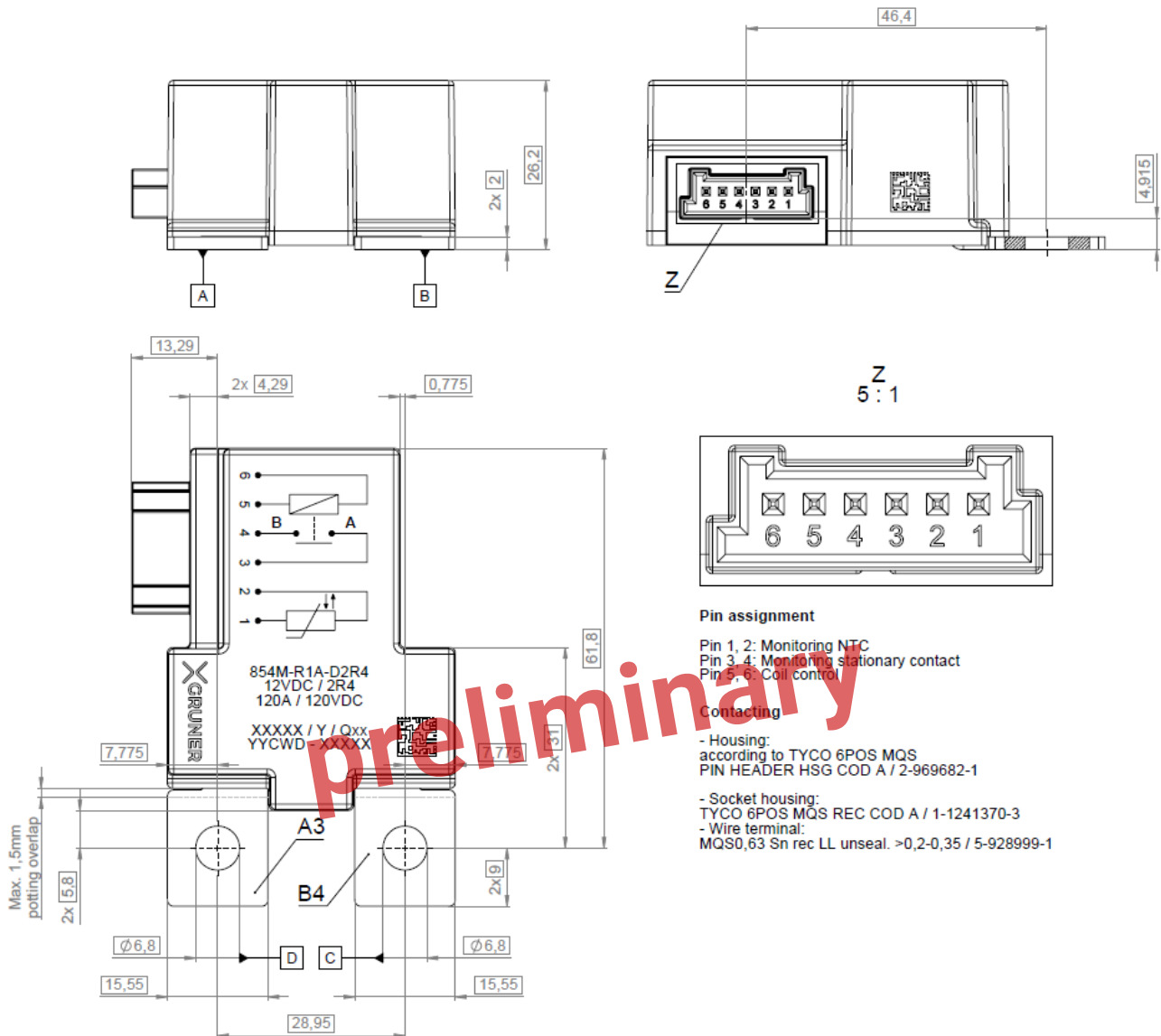
Standard windings

Standard winding No. (monostable)	Nominal coil voltage (VDC)	Operating voltage of the coil U1 - U2 (VDC)	Coil resistance (Ohm)	Tolerance (± %)
2R4	12	8,5 - 18	2,4	10
044	48	34 - 60	44	10

Identification

Identification code		854	M	-	R	1A	-	D	2R4
Type	854								
Version	M = monostable B = bistable								
Contact material	R = AgSnO ₂								
Contact arrangement	1A = 1 normally open								
Terminal-grid	D								
Winding No.	see coil table								

The power terminals can be modified according to customer specification



Breaking edges, without tin coating

Recommended tightening torque of the M6 threaded nut: 6Nm $\pm$ 6%

Reference measurement system  A - B | C - D