

TORNADO

TL / TLS and RT / RTS



CYLINDER PRESSURE REGULATORS
HAND CUTTING TORCHES
MACHINE CUTTING TORCHES
NOZZLES
ACCESSORIES

**HEAVY DUTY SINGLE STAGE CYLINDER PRESSURE REGULATORS
FOR HIGH OUTLET PRESSURE ADJUSTABLE TO 20 BAR**

TORNADO 20 Bar Series

Heavy duty single stage regulators with pressure-gauge

The **TORNADO** single stage, spring-loaded pressure regulator is a time and industry proven design that has evolved from more than 100 years of Messer German engineering experience and technology to ensure the accurate control of industrial gases with minimum outlet pressure fluctuations and comparatively high flowrates.

TORNADO regulators 20 Bar series is a visibly strong, no nonsense, durable construction that sets the standard for pressure regulators used throughout heavy duty welding, brazing, heating, cutting, gouging applications. The **TORNADO** uses the most up-to-date production and testing facilities to ensure a reliable, versatile, affordable, high performance regulator.

| Type TL/RT | Type TLS/RTS | Standard | Gas Type | Inlet Pressure | Outlet Pressure | Art-No. L | Art-No. LS |
|-------------|--------------|----------|-----------------------------------|------------------|-----------------|--------------------|--------------|
| TL/E-O 20 | TLS/E-O 20 | DIN | O ₂ Oxygen | 230 bar/3335 psi | 20 bar/290 psi | 770.21210 | 770.21211 |
| TL/B-O 20 | TLS/B-O 20 | BSP | | | | 770.21222 | 770.21223 |
| RT/U-O 20 | RT/U-O 20 | CGA | | | | 770.21341 | 770.21342 |
| TL/F-O 20 | TRS/F-O 20 | NFE | | | | 770.21343 | 770.21344 |
| TL/AS-O 20 | TRS/AS-O 20 | AS | | | | 23000 Kpa/3335 psi | 2000/290 psi |
| TL/E-H 20 | TLS/E-H 20 | DIN | H ₂ Oxygen | 230 bar/3335 psi | 20 bar/290 psi | 770.21234 | 770.21235 |
| TL/B-H 20 | TLS/B-H 20 | BSP | | | | 770.21246 | 770.21247 |
| RT/U-H 20 | RTS/U-H 20 | CGA | | | | 770.21347 | 770.21348 |
| TL/F-H 20 | TLS/F-H 20 | NFE | | | | 770.21349 | 770.21350 |
| TL/AS-H 20 | TRS/AS-H 20 | AS | | | | 23000 Kpa/3335 psi | 2000/290 psi |
| TL/E-Ar 20 | TLS/E-Ar 20 | DIN | Ar Argon | 230 bar/3335 psi | 20 bar/290 psi | 770.21258 | 770.21259 |
| TL/B-Ar 20 | TLS/B-Ar 20 | BSP | | | | 770.21270 | 770.21271 |
| RT/U-Ar 20 | RTS/U-Ar 20 | CGA | | | | 770.21353 | 770.21354 |
| TL/F-Ar 20 | TLS/F-Ar 20 | NFE | | | | 770.21355 | 770.21356 |
| TL/AS-Ar 20 | TRS/AS-Ar 20 | AS | | | | 23000 Kpa/3335 psi | 2000/290 psi |
| TL/E-C 20 | TLS/E-C 20 | DIN | CO ₂ Carbon Dioxide | 100 bar/1450 psi | 20 bar/290 psi | 770.21282 | 770.21283 |
| TL/B-C 20 | TLS/B-C 20 | BSP | | | | 770.21286 | 770.21287 |
| RT/U-C 20 | RTS/U-C 20 | CGA | | | | 770.21359 | 770.21360 |
| TL/F-C 20 | TLS/F-C 20 | NFE | | | | 770.21361 | 770.21362 |
| TL/AS-C 20 | TRS/AS-N 20 | AS | | | | 10000 Kpa/1450 psi | 2000/290 psi |
| TL/E-N 20 | TLS/E-N 20 | DIN | N ₂ Nitrogen | 230 bar/3335 psi | 20 bar/290 psi | 770.21290 | 770.21291 |
| TL/B-N 20 | TLS/B-N 20 | BSP | | | | 770.21302 | 770.21303 |
| RT/U-N 20 | RTS/U-N 20 | CGA | | | | 770.21365 | 770.21366 |
| TL/F-N 20 | TLS/F-N 20 | NFE | | | | 770.21367 | 770.21368 |
| TL/AS-N 20 | TRS/AS-N 20 | AS | | | | 23000 Kpa/3335 psi | 2000/290 psi |
| TL/E-He 20 | TLS/E-He 20 | DIN | He Helium | 230 bar/3335 psi | 20 bar/290 psi | 770.21314 | 770.21315 |
| TL/B-He 20 | TLS/B-He 20 | BSP | | | | 770.21326 | 770.21327 |
| RT/U-He 20 | RTS/U-He 20 | CGA | | | | 770.21371 | 770.21372 |
| TL/F-He 20 | TLS/F-He 20 | NFE | | | | 770.21373 | 770.21374 |
| TL/AS-He 20 | TRS/AS-He 20 | AS | | | | 23000 Kpa/3335 psi | 2000/290 psi |



Left-side inlet connection
TORADO series TL / TLS

Right-side inlet connection
TORADO series RL / RTS



- Designed in accordance to internationally recognized standards EN ISO, BSP, CGA, NFE and AS.
- Manufactured under the quality management of EN ISO 9001.
- 100% Quality Assurance Testing.
- Heavy duty, durable construction.
- Forged brass body and housing cap.
- Ergonomically designed, colour coded pressure adjusting hand knob for comfortable operation.
- Unique Central Sintered filter
- Soft valve seat to ensure leak tightness and increase life span.
- Inlet and outlet pressure gauge with dual scale.
- Fire-retardant valve seat material.
- Outlet pressure relief valve ensures operator safety.
- Internal limit lock to prevent over pressurising of regulator.
- Unique, integrated, resettable design to limit outlet pressure.
- Large internal engineering to achieve comparatively high gas flow

Edition 10/12
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