



LISAN

TOSHIRO

PT. LINTAS SAHABAT ANTAR NIAGA



FIRE

EXTINGUISHER

ALARM SYSTEM

EQUIPMENT



P3DN

ISO 9001: 2015

ISO 14001: 2015

ISO 45001: 2018





TOSHIRO

TKDN CERTIFICATE



**Kementerian
Perindustrian**
REPUBLIK INDONESIA

TANDA SAH CAPAIAN TINGKAT KOMPONEN DALAM NEGERI

Sesuai dengan Peraturan Menteri Perindustrian No. 16/M-IND/PER/2/2011 tentang Ketentuan dan Tata Cara Penghitungan Tingkat Komponen Dalam Negeri, hasil verifikasi atas capaian Tingkat Komponen Dalam Negeri (TKDN) adalah sebagai berikut:

Jenis Produk	:	APAR
Tipe	:	Terlampir
Spesifikasi	:	Terlampir
Kode HS	:	84241090
Merk	:	Terlampir
Nilai TKDN	:	Terlampir
Terbilang	:	Terlampir
Standard Produk	:	-
Sertifikat Produk	:	-
No. Laporan	:	LPA-4795/PK-4399/PTKDNKOM-INFRA/SXII/22

yang telah ditandatangani oleh Kementerian Perindustrian dan berlaku 3 tahun terhitung sejak tanggal tanda sah,

diberikan kepada:

Nama Perusahaan	:	PT. Lintas Sahabat Antar Niaga
Alamat	:	Ruko Cibinong Mansion Jl. Jakarta - Bogor Km 49 No. 9, Nanggewer Mekar - Bogor
NPWP	:	96.098.298.3-452
Jenis Industri	:	Industri Mesin untuk Keperluan Umum Lainnya YTDL (KBL: 28199)
No. Tanda Sah	:	8032/SJ-IND.8/TKDN/12/2022

Jakarta, 23 Desember 2022

Kepala Pusat Peningkatan Penggunaan Produk Dalam Negeri



#40306



Nina Kumalasari



TOSHIRO

TKDN CERTIFICATE

LAMPIRAN

Halaman ke-1 dari 1 halaman

- | | |
|-------------------|---|
| 1. Tipe | : Karbondioksida |
| Spesifikasi | : 3 Kg |
| Merk | : TOSHIRO ; CRICKET SAFETY |
| Nilai TKDN | : 23,22% |
| Terbilang | : Dua puluh tiga koma dua dua persen |
| Standard Produk | : - |
| Sertifikat Produk | : - |
| 2. Tipe | : Karbondioksida |
| Spesifikasi | : 5 Kg |
| Merk | : TOSHIRO ; CRICKET SAFETY |
| Nilai TKDN | : 23,14% |
| Terbilang | : Dua puluh tiga koma satu empat persen |
| Standard Produk | : - |
| Sertifikat Produk | : - |



TOSHIRO

TKDN CERTIFICATE



**Kementerian
Perindustrian**
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Jenis Produk	:	APAR
Tipe	:	Terlampir
Spesifikasi	:	Terlampir
Kode HS	:	84241090
Merk	:	Terlampir
Nilai TKDN	:	Terlampir
Terbilang	:	Terlampir
Standard Produk	:	-
Sertifikat Produk	:	-
No. Laporan	:	LPA-4794/PK-4399/PTKDNKOM-INFRAS/XII/22

yang telah ditandatangani oleh Kementerian Perindustrian dan berlaku 3 tahun terhitung sejak tanggal tanda sah,

diberikan kepada:

Nama Perusahaan	:	PT. Lintas Sahabat Antar Niaga
Alamat	:	Ruko Cibinong Mansion Jl. Jakarta - Bogor Km 49 No. 9, Nanggewer Mekar - Bogor
NPWP	:	96.098.298.3-452
Jenis Industri	:	Industri Mesin untuk Keperluan Umum Lainnya YTDL (KBL: 28199)
No. Tanda Sah	:	8031/SJ-IND.8/TKDN/12/2022

Jakarta, 23 Desember 2022



#40298

Kepala Pusat Peningkatan Penggunaan Produk Dalam Negeri



Nifa Kumalasari
Nifa Kumalasari



TOSHIRO

TKDN CERTIFICATE

LAMPIRAN

Halaman ke-1 dari 2 halaman

1. Tipe : Nitrogen
Spesifikasi : 0,5 Kg
Merk : TOSHIRO ; CRICKET SAFETY
Nilai TKDN : 25,40%
Terbilang : Dua puluh lima koma empat nol persen
Standard Produk : -
Sertifikat Produk : -
2. Tipe : Nitrogen
Spesifikasi : 1 Kg
Merk : TOSHIRO ; CRICKET SAFETY
Nilai TKDN : 25,39%
Terbilang : Dua puluh lima koma tiga sembilan persen
Standard Produk : -
Sertifikat Produk : -
3. Tipe : Nitrogen
Spesifikasi : 3 Kg
Merk : TOSHIRO ; CRICKET SAFETY
Nilai TKDN : 24,70%
Terbilang : Dua puluh empat koma tujuh nol persen
Standard Produk : -
Sertifikat Produk : -
4. Tipe : Nitrogen
Spesifikasi : 4 Kg
Merk : TOSHIRO ; CRICKET SAFETY
Nilai TKDN : 24,82%
Terbilang : Dua puluh empat koma delapan dua persen
Standard Produk : -
Sertifikat Produk : -
5. Tipe : Nitrogen
Spesifikasi : 5 Kg
Merk : TOSHIRO ; CRICKET SAFETY
Nilai TKDN : 25,06%
Terbilang : Dua puluh lima koma nol enam persen
Standard Produk : -
Sertifikat Produk : -
6. Tipe : Nitrogen
Spesifikasi : 6 Kg
Merk : TOSHIRO ; CRICKET SAFETY
Nilai TKDN : 25,18%
Terbilang : Dua puluh lima koma satu delapan persen
Standard Produk : -
Sertifikat Produk : -



TOSHIRO

TKDN CERTIFICATE

LAMPIRAN

Halaman ke-2 dari 2 halaman

7. Tipe	:	Nitrogen
Spesifikasi	:	9 Kg
Merk	:	TOSHIRO ; CRICKET SAFETY
Nilai TKDN	:	22,78%
Terbilang	:	Dua puluh dua koma tujuh delapan persen
Standard Produk	:	-
Sertifikat Produk	:	-
8. Tipe	:	Nitrogen
Spesifikasi	:	25 Kg
Merk	:	TOSHIRO ; CRICKET SAFETY
Nilai TKDN	:	14,27%
Terbilang	:	Empat belas koma dua tujuh persen
Standard Produk	:	-
Sertifikat Produk	:	-



TOSHIRO

TKDN CERTIFICATE



DAFTAR INVENTARISASI
BARANG/JASA PRODUKSI
DALAM NEGERI

PENINGKATAN PENGGUNAAN PRODUK DALAM NEGERI

[HOME](#) [SERTIFIKAT](#) [REKAPITULASI](#) [FAQ](#) [REGULASI](#) [VIDEO](#) [REFERENSI](#)

Detail Sertifikat TKDN

Perusahaan	PT. Lintas Sahabat Antar Niaga
No. Sertifikat	8031/SJ-IND.8/TKDN/12/2022
Tanggal	23 Desember 2022
Hasil Produksi	Industri Mesin untuk Keperluan Umum Lainnya YTDL
Kode HS	84241090
No Referensi	TKDN - 22 - 40298
Verifikator	PT. Surveyor Indonesia

Jenis Produk	Merk dan Tipe	Spesifikasi	Standard	TKDN
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	0,5 Kg	-	25.40%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	1 Kg	-	25.39%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	3 Kg	-	24.70%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	4 Kg	-	24.82%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	5 Kg	-	25.06%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	6 Kg	-	25.18%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	9 Kg	-	22.78%
Apar	TOSHIRO ; CRICKET SAFETY Nitrogen	25 Kg	-	14.27%



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BARANG/JASA PRODUKSI
DALAM NEGERI

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Perusahaan	PT. Lintas Sahabat Antar Niaga
No. Sertifikat	8032/SJ-IND.8/TKDN/12/2022
Tanggal	23 Desember 2022
Hasil Produksi	Industri Mesin untuk Keperluan Umum Lainnya YTDL
Kode HS	84241090
No Referensi	TKDN - 22 - 40306
Verifikator	PT. Surveyor Indonesia

Jenis Produk	Merk dan Tipe	Spesifikasi	Standard	TKDN
Apar	TOSHIRO ; CRICKET SAFETY Karbondioksida	3 Kg	-	23.22%
Apar	TOSHIRO ; CRICKET SAFETY Karbondioksida	5 Kg	-	23.14%



TOSHIRO

UJI LABORATORIUM

APAR



PEMERINTAH PROVINSI DKI JAKARTA
DINAS PENANGGULANGAN KEBAKARAN DANPENYELAMATAN
LABORATORIUM KEBAKARAN DANPENYELAMATAN
Jl. Raya Ciracas No. 113 Jakarta Timur
Telepon (021) 8721909,2962 7617/ Fax (021) 8721909
Website :www.jakartafire.net, E-Mail :labdamkar@jakarta.go.id,labkar113@gmail.com
J A K A R T A

Kode Pos : 13740

Halaman 1 dari 4

LAPORAN HASIL UJI

Nomor : 147 / LHU / XII / 2020
Contoh Uji : Alat Pemadam Api Ringan (APAR)
- Jenis ABC *Dry Chemical Powder* ukuran 3 kg, 5 kg, 6 kg dan 20 kg
- Jenis CO₂ ukuran 3 kg, 5 kg, 7 kg dan 25 kg
merek "TOSHIRO"
Tanggal Terima : 30 November 2020
Kode Contoh Uji : APR/258/06-1/XI/2020, APR/259/06-2/XI/2020, APR/260/06-3/XI/2020,
APR/261/06-4/XI/2020, APR/262/06-5/XI/2020, APR/263/06-6/XI/2020,
APR/264/06-7/XI/2020 dan APR/265/06-8/XI/2020
Tanggal Pengujian : 11 Desember 2020
Nama Pemohon : PT. Lintas Sahabat Antar Niaga
Direktur Utama : Muhidin (NIK 3201132506790007)
Alamat : Ruko Cibinong Mansion Jl Raya Jakarta-Bogor KM 49 No.9
Nanggewer Mekar - Bogor
Tlp. 021 8379266
Email : pt.lisan@lisan.co.id
Untuk Keperluan : Pembuatan Uji Lab Damkar
Berlaku sampai dengan : Desember 2023

1. Kondisi Pengujian

- 1.1. Kondisi angin : kecepatan 0,98 m/detik
- 1.2. Suhu Udara : 32,5°C
- 1.3. Efektifitas : pemadaman berhasil
- 1.4. *Flash back* sampai 1 menit : tidak ada
- 1.5. Daya padam 3A kayu 96 potong ukuran 4 x 6 x 65 cm dengan susunan 13 susun @ 7 potong + 5 potong
- 1.6. Daya padam 4A kayu 104 potong ukuran 4 x 6 x 80 cm dengan susunan 13 susun @ 8 potong
- 1.7. Daya padam 5A kayu 121 potong ukuran 4 x 6 x 90 cm dengan susunan 13 susun @ 9 potong
- 1.8. + 4 potong
- 1.9. Daya padam 12A kayu 226 potong ukuran 4 x 6 x 110 cm dengan susunan 17 susun @ 13 potong + 5 potong
- 1.10. Daya padam 1 B bahan bakar minyak 6 liter dengan ukuran bak 45 x 45 x 30 cm
- 1.11. Daya padam 3 B bahan bakar minyak 18 liter dengan ukuran bak 80 x 80 x 30 cm
- 1.12. Daya padam 5 B bahan bakar minyak 30 liter dengan ukuran bak 100 x 100 x 30 cm
- 1.13. Daya padam 10 B bahan bakar minyak 60 liter dengan ukuran bak 150 x 150 x 30 cm
- 1.14. Daya padam 12 B bahan bakar minyak 72 liter dengan ukuran bak 155 x 155 x 30 cm
- 1.15. Daya padam 15 B bahan bakar minyak 90 liter dengan ukuran bak 173 x 173 x 30 cm
- 1.16. Daya padam 40 B bahan bakar minyak 240 liter dengan ukuran bak 300 x 300 x 30 cm
- 1.17. Kelas C : menghantar / tidak arus listrik < 10 mA, tegangan 20.000 volt

2. Hasil Uji

2.1. Hasil Uji Sifat Fisik Bahan

No.	Parameter	Satuan	Hasil	Syarat	Metode Uji/Teknik
A	ABC <i>Dry Chemical Powder</i>				
1.	Uji Berat Jenis	gr / cm ³	1,03	-	
2.	Uji Kadar Air	%	0,24	-	
3.	Uji Berat Isi Gembur	gr / cm ³	0,92	-	
4.	Uji Berat Isi Padat	gr / cm ³	1,00	-	



TOSHIRO

UJI LABORATORIUM

APAR



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LABORATORIUM KEBAKARAN DANPENYELAMATAN
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 Website :www.jakartafire.net, E-Mail :labdamkar@jakarta.go.id,labkar113@gmail.com
 J A K A R T A

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 Nomor : 147 / LHU / XII / 2020

2.2. Hasil Uji Kinerja Alat

No.	Parameter	Waktu Pemadam			Metode Uji/Teknik
		Satuan	Hasil	Syarat	
1.	Uji Kelas A Jenis ABC Dry Chemical Powder				SK Gubernur No. 99 Tahun 2004; SOP Teknis No. 264/2005 - Efektifitas Pemadaman berhasil - Flash back sampai 1 menit : tidak ada
	- 3 kg : daya padam 3A	detik	11,38	-	
	- 5 kg : daya padam 4A	detik	26,7	-	
	- 6 kg : daya padam 5A	detik	45,48	-	
	- 20 kg : daya padam 12A	detik	17,15	-	
	Uji Kelas B Jenis ABC Dry Chemical Powder				
	- 3 kg : daya padam 10B	detik	5,10	-	
	- 5 kg : daya padam 12B	detik	5,00	-	
	- 6 kg : daya padam 15B	detik	5,00	-	
	- 20 kg : daya padam 40B	detik	8,40	-	
Jenis CO ₂					
- 3 kg : daya padam 1B	detik	1,04	-		
- 5 kg : daya padam 3B	detik	3,82	-		
- 7 kg : daya padam 5B	detik	2,77	-		
- 25 kg : daya padam 12B	detik	8,27	-		
3.	Persentase Berat Bahan Terpakai	Persentase Media Terpakai			
		Satuan	Hasil	Syarat	
Uji Kelas A Jenis ABC Dry Chemical Powder					
	- 3 kg	%	24,44	-	
	- 5 kg	%	65,15	-	
	- 6 kg	%	69,88	-	
	- 20 kg	%	29,57	-	
Uji Kelas B Jenis ABC Dry Chemical Powder					
	- 3 kg	%	39,13	-	
	- 5 kg	%	40,91	-	
	- 6 kg	%	32,53	-	
	- 20 kg	%	36,16	-	
Jenis CO ₂					
- 3 kg	%	2,97	-		
- 5 kg	%	10,18	-		
- 7 kg	%	4,72	-		
- 25 kg	%	5,36	-		
4.	Uji Kelas C Jenis ABC Dry Chemical Powder		Tidak menghantar arus listrik	< 10 mA	



TOSHIRO

UJI LABORATORIUM

A P A R



PEMERINTAH PROVINSI DKI JAKARTA
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J A K A R T A

Kode Pos : 13740

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Nomor : 147 / LHU / XII / 2020

3. Foto Pengujian

3.1. Kelas A

3.1.1. ABC Dry Chemical Powder ukuran 3 kg, 5 kg, 6 kg dan 20 kg



Contoh uji



Saat pemadaman



Pemadaman selesai/api padam

3.2. Kelas B

3.2.1. ABC Dry Chemical Powder ukuran 3 kg, 5 kg, 6 kg, 20 kg dan CO₂ ukuran 3 kg, 5 kg, 7 kg, 25 kg



Awal pra pembakaran

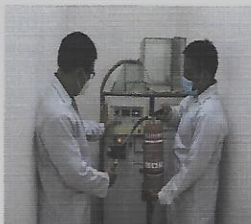


Saat pemadaman



Pemadaman selesai/api padam

3.3. Kelas C



Saat pengujian berlangsung



TOSHIRO

UJI LABORATORIUM

A P A R



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J A K A R T A

Kode Pos : 13740

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Nomor : 147 / LHU / XII / 2020

4. Kesimpulan

- 4.1. Contoh uji memenuhi syarat sesuai parameter dari metode uji yang digunakan
- 4.2. Daya padam ABC *Dry Chemical Powder*, 3 kg : 3 A / 10 B
- 4.3. Daya padam ABC *Dry Chemical Powder*, 5 kg : 4 A / 12 B
- 4.4. Daya padam ABC *Dry Chemical Powder*, 6 kg : 5 A / 15 B
- 4.5. Daya padam ABC *Dry Chemical Powder*, 20 kg : 12 A / 40 B
- 4.6. Daya padam CO₂, 3 kg : 1 B
- 4.7. Daya padam CO₂, 5 kg : 3 B
- 4.8. Daya padam CO₂, 7 kg : 5 B
- 4.9. Daya padam CO₂, 25 kg : 12 B
- 4.10. Jenis ABC *Dry Chemical Powder* dapat digunakan untuk kelas C.



Jakarta, 28 Desember 2020
Kepala Laboratorium Kebakaran dan
Penyelamatan,

Irwan, S.H., M.M
NIP. 196310011985031010



TOSHIRO

UJI LABORATORIUM

SPRINKLER



PEMERINTAH PROVINSI DKI JAKARTA
DINAS PENANGGULANGAN KEBAKARAN DAN PENYELAMATAN
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Telepon (021) 8721909, 29627617 / Fax (021) 8721909
Website : www.jakartafire.net, E-Mail : labdankarjakarta@gmail.com, WA : 089517354277
J A K A R T A
Kode Pos : 13740

Halaman 1 dari 2

LAPORAN HASIL UJI

Nomor : 207 / TB.06.01
Contoh Uji : Kepala Pemercik (*Sprinkler*) jenis *Pendent*, *Upright* dan *Sidewall* merek "TOSHIRO"
Tanggal Terima : 20 Februari 2023
Kode Contoh Uji : SPR/01/01-1/III/2023, SPR/02/01-2/III/2023 dan SPR/03/01-3/III/2023
Tanggal Pengujian : 13 Maret 2023
Nama Pemohon : PT Lintas Sahabat Antar Niaga
Direktur : Muhidin (NIK 3201132506790007)
Alamat : Ruko Cibinong Mansion Jl. Jakarta - Bogor Km 49 No. 9, Nanggewer Mekar - Bogor
Tlp. (021) 837 29266
Email : pt.lisan20@gmail.com
Untuk Keperluan : Uji Lab *Sprinkler*
Berlaku sampai dengan : 14 Maret 2026

1. Spesifikasi Alat (Brosur Perusahaan)

No	Thread Size	Sprinkler Style	Working Pressure (Mpa)	Bursting Pressure (Mpa)	Suhu Kerja / Fusing Point (°C)	Warna Tabung / Bulb Color
1.	½"	Pendent	1,6	2,4	68	merah
2.	½"	Upright	1,6	2,4	68	merah
3.	½"	Sidewall	1,6	2,4	68	merah

2. Hasil Uji Kinerja

No	Jenis/Type	Suhu Pecah (°C)	Waktu Pecah (detik)	Jarak Pancar (meter)	Daya Tahan (bar)	Metode Uji/Teknik
1	Pendent	78,5	15,56	2,50	12	NFPA 13 : 2010
2	Upright	66,9	10,52	2,80	12	
3	Sidewall	68,5	6,16	2,40	12	

3. Foto Pengujian



TOSHIRO

UJI LABORATORIUM

SPRINKLER



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JAKARTA

Kode Pos : 13740

Halaman 2 dari 2
Nomor : 207 / TB.06.01

3. Foto Pengujian



Contoh Uji



Saat Pengujian



Kinerja Alat

4. Kesimpulan

- 4.1. Hasil Uji Kinerja Kepala Pemercik (*Sprinkler*) jenis *Pendent* merek "TOSHIRO" Suhu Pecah 78,5°C, Waktu Pecah 15,56 detik, Jarak Pancar 2,50 meter dan Daya Tahan 11 bar ;
- 4.2. Hasil Uji Kinerja Kepala Pemercik (*Sprinkler*) jenis *Upright* merek " TOSHIRO" Suhu Pecah 66,9°C, Waktu Pecah 10,52 detik, Jarak Pancar 2,80 meter dan Daya Tahan 11 bar ;
- 4.3. Hasil Uji Kinerja Kepala Pemercik (*Sprinkler*) jenis *Sidewall* merek " TOSHIRO" Suhu Pecah 68,5°C, Waktu Pecah 6,16 detik, Jarak Pancar 2,40 meter dan Daya Tahan 11 bar.

Jakarta, 14 Maret 2023



Herbert Pilder Lumban Gaol, S.Sos,MM
NIP 196910211990081001



TOSHIRO

UJI LABORATORIUM

HYDRANT VALVE



PEMERINTAH PROVINSI DKI JAKARTA
DINAS PENANGGULANGAN KEBAKARAN DAN PENYELAMATAN
LABORATORIUM KEBAKARAN DAN PENYELAMATAN
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Website : www.jakartafire.net, E-Mail : labdamkarjakarta@gmail.com, WA : 089517354277
JAKARTA

Kode Pos : 13740

Halaman 2 dari 2
Nomor : 207 / TB.06.01

3. Foto Pengujian



Contoh Uji



Saat Pengujian



Kinerja Alat

4. Kesimpulan

- 4.1. Hasil Uji Kinerja Kepala Pemercik (*Sprinkler*) jenis *Pendent* merek "TOSHIRO" Suhu Pecah 78,5°C, Waktu Pecah 15,56 detik, Jarak Pancar 2,50 meter dan Daya Tahan 11 bar ;
- 4.2. Hasil Uji Kinerja Kepala Pemercik (*Sprinkler*) jenis *Upright* merek " TOSHIRO" Suhu Pecah 66,9°C, Waktu Pecah 10,52 detik, Jarak Pancar 2,80 meter dan Daya Tahan 11 bar ;
- 4.3. Hasil Uji Kinerja Kepala Pemercik (*Sprinkler*) jenis *Sidewall* merek " TOSHIRO" Suhu Pecah 68,5°C, Waktu Pecah 6,16 detik, Jarak Pancar 2,40 meter dan Daya Tahan 11 bar.

Jakarta, 14 Maret 2023



Kepala Laboratorium Kebakaran dan
Penyelamatan,

Herbert Pilder Lumban Gaol, S.Sos,MM
NIP 196910211990081001



TOSHIRO

UJI LABORATORIUM

HYDRANT VALVE



PEMERINTAH PROVINSI DKI JAKARTA
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Website : www.jakartafire.net, E-Mail : labdamkarjakarta@gmail.com, WA : 089517354277
J A K A R T A

Kode Pos : 13740

Halaman 1 dari 3

LAPORAN HASIL UJI

Nomor : 277 / TB.06.01
Contoh Uji : Komponen Hidran berupa *Hydrant Valve* ukuran 1,5 inch, 2,5 inch, *Hydrant Pilar* dan *Siamese Connection* merek "TOSHIRO" tekanan kerja 10 bar
Tanggal Terima : 14 Februari 2023
Kode Contoh Uji : HDR/05/01-1/III/2023, HDR/06/01-2/III/2023, HDR/07/01-3/III/2023 dan HDR/08/01-4/III/2023
Tanggal Pengujian : 13 Maret 2023
Nama Pemohon : PT Lintas Sahabat Antar Niaga
Direktur : Muhidin (NIK 3201132506790007)
Alamat : Ruko Cibinong Mansion Jl. Jakarta – Bogor Km 49 No. 9, Nanggewer Mekar - Bogor
Tlp. (021) 837 29266
Email : pt.lisan20@gmail.com
Untuk Keperluan : Pembuatan Uji Lab Damkar
Berlaku sampai dengan : 29 Maret 2026

1. Kondisi Pengujian

1.1. Suhu Udara : 30,2 °C

2. Hasil Uji

2.1. *Hydrant Valve* 1,5 inch (HDR/05/01-1/III/2023)

No.	Parameter	Satuan (bar)	Hasil	Syarat	Metode Uji/Teknik
1.	Tekanan kerja (<i>Working Pressure</i>)	10	Baik/ tidak ada kebocoran	10 bar selama 1 menit tidak rusak dan tidak bocor	NFPA 14; SOP Teknis Nomor 573/2012
2.	Tekanan Hidrostatik (<i>Hydrostatic Test</i>)	14	Baik/ tidak ada kebocoran	14 bar selama 2 jam tidak rusak dan tidak bocor	
3.	Tekanan maksimum untuk system (<i>Maks Pressure for System</i>)	24	Baik/ tidak ada kebocoran	24 bar selama 1 menit tidak rusak dan tidak bocor	

2.2. *Hydrant Valve* 2,5 inch (HDR/06/01-2/III/2023)

No.	Parameter	Satuan (bar)	Hasil	Syarat	Metode Uji/Teknik
1.	Tekanan kerja (<i>Working Pressure</i>)	10	Baik/ tidak ada kebocoran	10 bar selama 1 menit tidak rusak dan tidak bocor	NFPA 14; SOP Teknis Nomor 573/2012
2.	Tekanan Hidrostatik (<i>Hydrostatic Test</i>)	14	Baik/ tidak ada kebocoran	14 bar selama 2 jam tidak rusak dan tidak bocor	
3.	Tekanan maksimum untuk system (<i>Maks Pressure for System</i>)	24	Baik/ tidak ada kebocoran	24 bar selama 1 menit tidak rusak dan tidak bocor	

2.3. *Hydrant Pilar* (HDR/07/01-3/III/2023)

No.	Parameter	Satuan (bar)	Hasil	Syarat	Metode Uji/Teknik
1.	Tekanan kerja (<i>Working Pressure</i>)	10	Baik/ tidak ada kebocoran	10 bar selama 1 menit tidak rusak dan tidak bocor	NFPA 14; SOP Teknis Nomor 573/2012
2.	Tekanan Hidrostatik (<i>Hydrostatic Test</i>)	14	Baik/ tidak ada kebocoran	14 bar selama 2 jam tidak rusak dan tidak bocor	
3.	Tekanan maksimum untuk system (<i>Maks Pressure for System</i>)	24	Baik/ tidak ada kebocoran	24 bar selama 1 menit tidak rusak dan tidak bocor	

2.4. *Siamese Connection*



TOSHIRO

UJI LABORATORIUM

HYDRANT VALVE



PEMERINTAH PROVINSI DKI JAKARTA
DINAS PENANGGULANGAN KEBAKARAN DAN PENYELAMATAN
LABORATORIUM KEBAKARAN DAN PENYELAMATAN
Jl. Raya Ciracas No. 113 Jakarta Timur
Telepon (021) 8721909, 29627617 / Fax (021) 8721909
Website : www.jakartafire.net, E-Mail : labdamkarjakarta@gmail.com, WA : 089517354277
J A K A R T A

Kode Pos : 13740

Halaman 2 dari 3
Nomor : 277 / TB.06.01

2.4. Siamese Connection (HDR/08/01-4/II/2023)

No.	Parameter	Satuan (bar)	Hasil	Syarat	Metode Uji/Teknik
1.	Tekanan kerja (<i>Working Pressure</i>)	10	Baik/ tidak ada kebocoran	10 bar selama 1 menit tidak rusak dan tidak bocor	NFPA 14; SOP Teknis Nomor 573/2012
2.	Tekanan Hidrostatik (<i>Hydrostatic Test</i>)	14	Baik/ tidak ada kebocoran	14 bar selama 2 jam tidak rusak dan tidak bocor	
3.	Tekanan maksimum untuk system (<i>Maks Pressure for System</i>)	24	Baik/ tidak ada kebocoran	24 bar selama 1 menit tidak rusak dan tidak bocor	

3. Foto Pengujian

3.1. Komponen Hydrant



Contoh Uji



Persiapan Pengujian

3.2. Pada saat Pengujian Hydrant Valve ukuran 1,5 inch, 2,5 inch, Hydrant Pilar dan Siamese Connection



10 Bar



14 Bar



24 Bar

4. Kesimpulan

4.1. Contoh Uji Komponen Hidran berupa Valve 1,5 inch merek "TOSHIRO" :

- Tekanan kerja (*Working Pressure*) baik / tidak ada kebocoran dengan syarat 10 bar selama 1 menit tidak rusak dan tidak bocor ;
- Tekanan Hidrostatik (*Hydrostatic Test*) baik / tidak ada kebocoran dengan syarat 14 bar selama 2 jam tidak rusak dan tidak bocor ;
- Tekanan maksimum untuk system (*Maks Pressure for System*) baik / tidak ada kebocoran dengan syarat 24 bar selama 1 menit tidak rusak dan tidak bocor.



TOSHIRO

UJI LABORATORIUM

HYDRANT VALVE



PEMERINTAH PROVINSI DKI JAKARTA
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JAKARTA

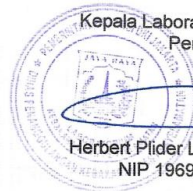
Kode Pos : 13740

Halaman 3 dari 3
Nomor : 277 / TB.06.01

- 4.2. Contoh uji Komponen Hidran berupa Valve 2,5 inch merek "TOSHIRO" :
- Tekanan kerja (*Working Pressure*) baik / tidak ada kebocoran dengan syarat 10 bar selama 1 menit tidak rusak dan tidak bocor ;
 - Tekanan Hidrostatik (*Hydrostatic Test*) baik / tidak ada kebocoran dengan syarat 14 bar selama 2 jam tidak rusak dan tidak bocor ;
 - Tekanan maksimum untuk system (*Maks Pressure for System*) baik / tidak ada kebocoran dengan syarat 24 bar selama 1 menit tidak rusak dan tidak bocor.
- 4.3. Contoh uji Komponen Hidran berupa Hydrant Pilar merek "TOSHIRO" :
- Tekanan kerja (*Working Pressure*) baik / tidak ada kebocoran dengan syarat 10 bar selama 1 menit tidak rusak dan tidak bocor ;
 - Tekanan Hidrostatik (*Hydrostatic Test*) baik / tidak ada kebocoran dengan syarat 14 bar selama 2 jam tidak rusak dan tidak bocor ;
 - Tekanan maksimum untuk system (*Maks Pressure for System*) baik / tidak ada kebocoran dengan syarat 24 bar selama 1 menit tidak rusak dan tidak bocor.
- 4.4. Contoh uji Komponen Hidran berupa Siamese Connection merek "TOSHIRO" :
- Tekanan kerja (*Working Pressure*) baik / tidak ada kebocoran dengan syarat 10 bar selama 1 menit tidak rusak dan tidak bocor ;
 - Tekanan Hidrostatik (*Hydrostatic Test*) baik / tidak ada kebocoran dengan syarat 14 bar selama 2 jam tidak rusak dan tidak bocor ;
 - Tekanan maksimum untuk system (*Maks Pressure for System*) baik / tidak ada kebocoran dengan syarat 24 bar selama 1 menit tidak rusak dan tidak bocor.

Jakarta, 29 Maret 2023

Kepala Laboratorium Kebakaran dan
Penyelamatan,



Herbert Plider Lumban Gaol,S.Sos,MM
NIP 196910211990081001

TOSHIRO PORTABLE

ABC MULTIPURPOSE DRY POWDER

TSR - DP10

1 KG ABC POWDER

- ✓ Agent Weight 1 Kg
- ✓ Tube Height 250 mm
- ✓ Total Weight 2 Kg
- ✓ Tube Diameter 90 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 bar
- ✓ Wall Thickness 0.9 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP30

3 KG ABC POWDER

- ✓ Agent Weight 3 Kg
- ✓ Tube Height 350mm
- ✓ Total Weight 4.83 Kg
- ✓ Tube Diameter 130 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.2 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP40

4 KG ABC POWDER

- ✓ Agent Weight 4 Kg
- ✓ Tube Height 410mm
- ✓ Total Weight 5.84 Kg
- ✓ Tube Diameter 130 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.2 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO PORTABLE

ABC MULTIPURPOSE DRY POWDER

TSR - DP50

5 KG ABC POWDER

- ✓ Agent Weight 5 Kg
- ✓ Tube Height 420 mm
- ✓ Total Weight 6.9 Kg
- ✓ Tube Diameter 140 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.2mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP60

6 KG ABC POWDER

- ✓ Agent Weight 6 Kg
- ✓ Tube Height 420 mm
- ✓ Total Weight 8 Kg
- ✓ Tube Diameter 160 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.2 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP90

9 KG ABC POWDER

- ✓ Agent Weight 9 Kg
- ✓ Tube Height 500 mm
- ✓ Total Weight 11 Kg
- ✓ Diameter 182 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.5 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO PORTABLE

ABC MULTIPURPOSE DRY POWDER

TSR - DP100

10 KG ABC POWDER

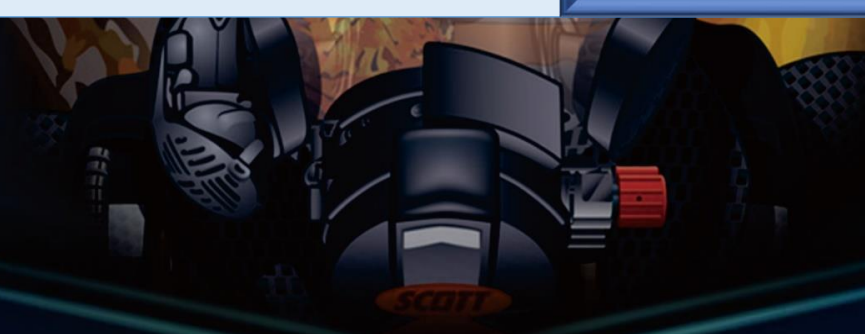
- ✓ Agent Weight 10 Kg
- ✓ Tube Height 600 mm
- ✓ Total Weight 13.3 Kg
- ✓ Tube Diameter 182mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.5 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP120

12 KG ABC POWDER

- ✓ Agent Weight 12 Kg
- ✓ Tube Height 600 mm
- ✓ Total Weight 15.3 Kg
- ✓ Tube Diameter 182mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 1.5 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO TROLLEY

ABC MULTIPURPOSE DRY POWDER

TSR - DP200

20 KG ABC POWDER

- ✓ Agent Weight 20 Kg
- ✓ Tube Height 590 mm
- ✓ Tube Diameter 240 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 3 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP250



25 KG ABC POWDER

- ✓ Agent Weight 25 Kg
- ✓ Tube Height 920 mm
- ✓ Tube Diameter 300 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 3 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR - DP400

40 KG ABC POWDER

- ✓ Agent Weight 40 Kg
- ✓ Tube Height 990 mm
- ✓ Tube Diameter 340 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 3,5 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO TROLLEY

ABC MULTIPURPOSE DRY POWDER

TSR – DP500

50 KG ABC POWDER

- ✓ Agent Weight 50 Kg
- ✓ Tube Height 1095mm
- ✓ Tube Diameter 320 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 3.5 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR – DP700

70 KG ABC POWDER

- ✓ Agent Weight 70 Kg
- ✓ Tube Height 1170 mm
- ✓ Tube Diameter 350 mm
- ✓ Working Pressure 14 Bar
- ✓ Test Pressure 25 Bar
- ✓ Wall Thickness 3.5 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO

PORTABLE

CARBON DIOXIDE (CO2)

TSR - CO20

2 KG CO2

- ✓ Agent Weight 2 Kg
- ✓ Total Weight 7.6 Kg
- ✓ Tube Diameter 114 mm
- ✓ Tube Height 415 mm
- ✓ Volume 3.0L
- ✓ Material CK45
- ✓ Working Pressure 167 Bar
- ✓ Test Pressure 250 Bar
- ✓ Wall Thickness 4 mm
- ✓ Temperature Range – 30° sd 60° C



TSR - CO30

3 KG CO2

- ✓ Agent Weight 3 Kg
- ✓ Total Weight 10.5 Kg
- ✓ Tube Diameter 114 mm
- ✓ Tube Height 585mm
- ✓ Volume 4.5L
- ✓ Material CK45
- ✓ Working Pressure 167 Bar
- ✓ Test Pressure 250 Bar
- ✓ Wall Thickness 4 mm
- ✓ Temperature Range – 30° sd 60° C



TSR - CO50

5 KG CO2

- ✓ Agent Weight 5 Kg
- ✓ Total Weight 17.3 Kg
- ✓ Tube Diameter 152 mm
- ✓ Tube Height 560mm
- ✓ Volume 7.5L
- ✓ Material CK45
- ✓ Working Pressure 167 Bar
- ✓ Test Pressure 250 Bar
- ✓ Wall Thickness 5 mm
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO

PORTABLE

CARBON DIOXIDE (CO₂)

TSR - CO70

7 KG CO₂

- ✓ Agent Weight 7 Kg
- ✓ Total Weight 23 Kg
- ✓ Tube Diameter 152 mm
- ✓ Tube Height 750mm
- ✓ Volume 10.5L
- ✓ Material CK45
- ✓ Working Pressure 167 Bar
- ✓ Test Pressure 250 Bar
- ✓ Wall Thickness 5 mm
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO

THERMATIC

AUTOMATIC

DRY POWDER
CLEAN AGENT

TSR- THCA-40

4 KG AUTOMATIC CLEAN AGENT

- ✓ Agent Weight 4 Kg
- ✓ Cylinder Diameter 245 mm
- ✓ Height 180 mm
- ✓ Working Pressure 18 bar
- ✓ Test Pressure 27 bar
- ✓ Wall Thickness 2 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TSR- THCD-60

6 KG AUTOMATIC DRY POWDER

- ✓ Agent Weight 6 Kg
- ✓ Cylinder Diameter 275 mm
- ✓ Height 205 mm
- ✓ Working Pressure 18 bar
- ✓ Test Pressure 27 bar
- ✓ Wall Thickness 2 mm
- ✓ Finishing Powder Coating UV Resistant
- ✓ Temperature Range – 30° sd 60° C



TOSHIRO HYDRANT BOX

MODEL - A1 KACA

Dimension 66cm (H) x 52cm (W) x 15cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



MODEL - A2 KACA

Dimension 100cm (H) x 80cm (W) x 18cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



CUSTOM BOX WITH EXTINGUISHER BOX

Dimension 125cm (H) x 110cm (W) x 20cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



TOSHIRO HYDRANT BOX

CUSTOM BOX TYPE B

Dimension 180cm (H) x 80cm (W) x 25cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



MODEL – B INDOOR KACA

Dimension 125cm (H) x 75cm (W) x 18cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



MODEL – C OUTDOOR KACA

Dimension 95cm (H) x 66cm (W) x 20cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



TOSHIRO HYDRANT BOX

MODEL – B INDOOR



Dimension 125cm (H) x 75cm (W) x 18cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



MODEL – C OUTDOOR



Dimension 95cm (H) x 66cm (W) x 20cm (D)

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



BOX APAR

Dimension Following Fire Extinguisher Size

Material Mild Steel

Thickness 1.2mm, 1.6mm, 1.8mm, 2mm

Finishing Powder Coating



TOSHIRO

HYDRANT EQUIPMENT

HYDRANT VALVE

SIZE 1,5" | 2,5"

Coupling - Machino
- Van Der Heyde

Pressure 16K

Material Brass

Finishing Chrome

Handwhell Cast Iron



BRANCHPIPE WITH STRAIGHT NOZZE

SIZE 1,5" | 2,5"



Coupling Machino
Material Alluminium/Brass
Finishing Chrome



FIRE HOSE

Poly Vinyl Chloride (PVC)

Inner Lining

SIZE 2,5"



Working Pressure 16 Kg/cm²

Bursting Pressure 48 Kg/cm²

Weight / 30m 7.30 Kg

Material Canvas / Polyester



TOSHIRO

HYDRANT EQUIPMENT

RUBBER RED

SIZE 2,5"

Working Pressure 16 Kg/cm²
Bursting Pressure 48 Kg/cm²
Weight / 30m 10 Kg
Material Sintetic Rubber



HOSE REEL

Size 1" x 100 Feet
Test Pressure 17.5 Kg/cm²
Working Pressure 10 Kg/cm²

*Complete with stop valve,
Nozzle and clip*

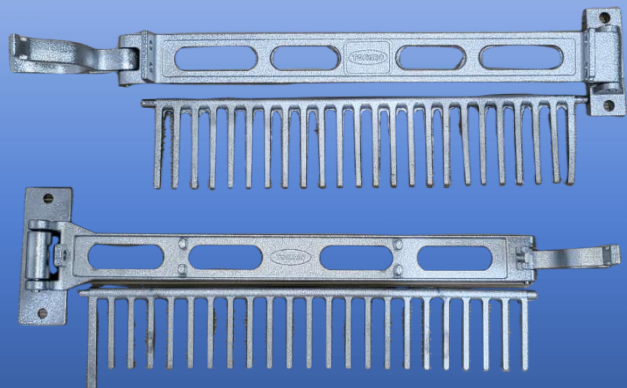


HOSE RACK

SIZE 1.5" | 2,5"



Comb 23
Material Alluminium/Brass
Finishing Chrome



TOSHIRO HYDRANT EQUIPMENT

SIAMESE CONNECTION TYPE WALL S-7 WALL STANDING S - 11



Size inlet 4" outlet 2 x 2.5"
Coupling Machino / VDH
Test Pressure 15 Kg / cm²
Working Pressure 10 Kg / cm²
Material Brass
Finishing Chrome



HYDRANT PILLAR



Size inlet 4" outlet 2 x 2.5"
Test Pressure 30 Kg/cm²
Working Pressure 10 Kg/cm²
Finishing Red Painting
Weight 34 Kg



TEST DRAIN VALVE



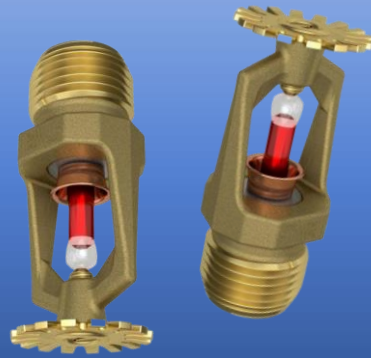
Size 1"
Pressure 175 Psi
Material Brass



TOSHIRO SPRINKLER

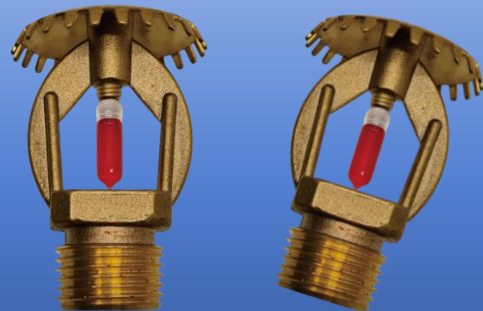
TYPE PENDENT ✓

K Factor K5.6 (80)
Thread Dimension ½" NPT
Response Standard
Finishing Brass / Chrome
Temp. Rating 68°C (155°) F



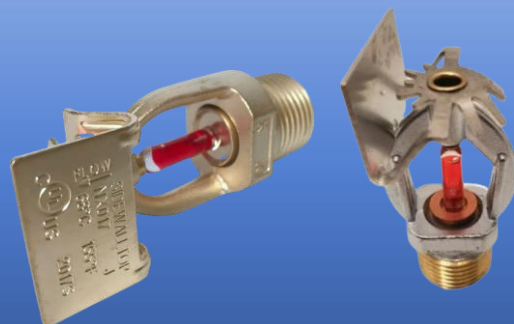
TYPE UP RIGHT

K Factor K5.6 (80)
Thread Dimension ½" NPT
Response Standard
Finishing Brass / Chrome
Temp. Rating 68°C (155°) F



TYPE SIDE WALL ✓

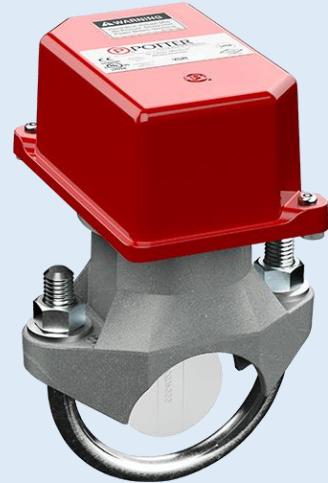
K Factor K5.6 (80)
Thread Dimension ½" NPT
Response Standard
Finishing Brass / Chrome
Temp. Rating 68°C (155°) F



Vane-Type Waterflow Switch

UL, CUL Listed / FM, LPCB, VdS Approved and CE Marked vane type waterflow switches shall be furnished and installed at each sprinkler system connection to the wet pipe main where indicated on the drawings and plans and as required by applicable local and national codes and standards.

The device shall be listed for pressures up to 450 psi, maximum water surges of 18 fps and alarm activation by a continuous flow of 10gpm. The device shall be Listed for installation on pipe schedules from 5-40 for 2" – 6" and schedule 10-40 for 8" through 10" size

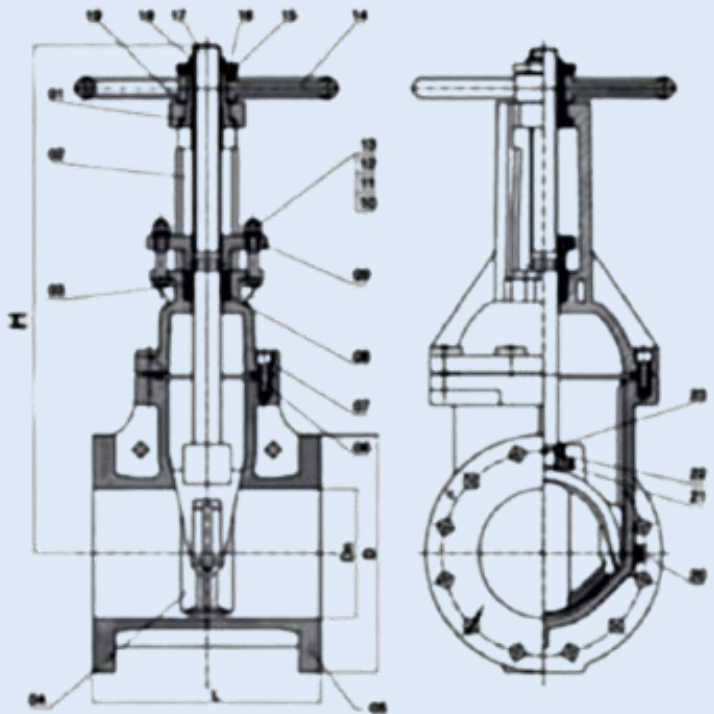


The device shall consist of a saddle with factory installed non-corrosive insert, gasket and non-corrosive vane and trip stem assembly as well as a field replaceable adjustable time delay / switch mechanism to prevent false alarms from water surges. All wetted parts of the waterflow switch shall be non-metallic to resist being affected by or contributing to corrosion. The waterflow switch enclosures shall be NEMA 4 rated and the cover shall be held captive by tamper resistant screws. It shall be possible to install an optional cover tamper switch to detect removal of the enclosure.

The field replaceable instantly recycling adjustable pneumatic retard shall provide a 0-90 second time delay and visual indication of activation. Expiration of the retard time shall result in the simultaneous operation of two sets of single pole double throw (SPDT) switch contacts rated at 10A, 125VAC and 2A, 30VDC. Each switch contact shall have a separate wiring chamber and separate conduit entrance to comply with the NEC requirements for separation of power limited and non power limited conductors without the need for special wire or wire methods.

Model	Nominal Pipe Size		Nominal Pipe O.D.		Compatible Pipe/ Installation Requirements										Hole Size		U-Bolt Nuts Torque	
					Pipe Wall Thickness													
					Lightwall		Schedule 10 (UL)		Schedule 40 (UL)		BS-1387 (LPC)		DN (VDS)					
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	ft-lb	n-m	
VSR-2	2	DN50	2.375	60.3	.065	1.651	0.109	2.77	0.154	3.91	0.142	3.6	0.091	2.3	1.25 + .125/- .062	33.0 ± 2.0	20	27
VSR-2 1/2	2.5	-	2.875	73.0	.084	2.134	0.120	3.05	0.203	5.16	-	-	-	-				
VSR-2 1/2	-	DN65	3.000	76.1	-	-	-	-	-	-	0.142	3.6	0.102	2.6				
VSR-3	3	DN80	3.500	88.9	.083	2.108	0.120	3.05	0.216	5.49	0.157	4.0	0.114	2.9	2.00 ± .125	50.8 ± 2.0	20	27
VSR-3 1/2	3.5	-	4.000	101.6	-	-	0.120	3.05	0.226	5.74	-	-	-	-				
VSR-4	4	DN100	4.500	114.3	.084	2.134	0.120	3.05	0.237	6.02	0.177	4.5	0.126	3.2				
VSR-5	5	-	5.563	141.3	-	-	0.134	3.40	0.258	6.55	-	-	-	-	2.00 ± .125	50.8 ± 2.0	20	27
VSR-6	6	DN150	6.625	168.3	.115	2.921	0.134	3.40	0.280	7.11	0.197	5.0	0.157	4.0				
VSR-8	8	DN200	8.625	219.1	-	-	0.148	3.76	0.322	8.18	0.248	6.3	0.177	4.5				

TOSHIRO GATE VALVE OS & Y



TECHNICAL SPECIFICATION

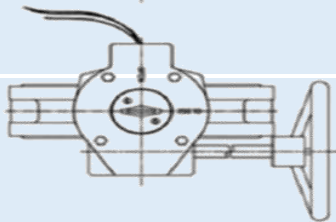
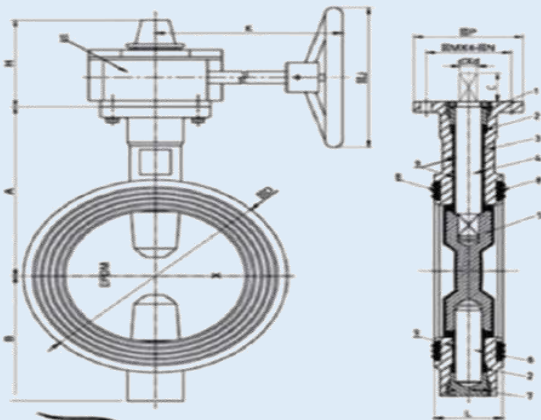
1. Design Standard AWWA C515
2. Nominal Pressure 300 PSI
3. Flange standard ASME/ANSI B16 1 Class or ASME / ANSI B16. 42 Class 150 or BS EN1092-2 PN16 or GB/T9113.1
4. Epoxy raisin Coating both inside, outside

Item size	2-1/2"	3"	4"	5"	6"	8"	10"	12"
Dn	65	80	103	128.5	155	204	225	304
L	190	203	229	254	267	292	330	356
D	178	191	229	254	279	343	406	483
N	370	420	447	547	507	754	890	1031

23	Sealing Ring	1	EPDM
22	Pin	1	S.S.304
21	Lifting Nut	1	CF8M
20	Plug	2	C95400
19	Gasket	1	C95400
18	Stem Nut	1	S.S.304
17	Stem	1	S.S.304
16	Locating Screw	1	S.S.304
15	Lock Nut	1	C95400
14	Handwheel	1	DI
13	Spring Washer	2	Steel
12	Bolt	2	Steel
11	Flat Washer	2	Steel
10	Nut	2	Steel
09	Gland	1	DI
08			
07	Bolt	m	Steel
06	Sealing Ring	1	EPDM
05	Body	1	DI
04	Disc	1	DI+EPDM
03	Packing	3	GRAPHITE
02	Bonnct	1	DI
01	Gasket	1	C95400
NO.	Name	Qty	Material

TECHNICAL SPECIFICATION

1. Maximum Working Pressure 300psi
2. Max. Test Pressure 600 psi
3. Maximum Working Temperature 250F / 120oC
4. Double Seal Disc Resilient EPDM Coated
5. Factory installed Supervisory
6. Tamper switch Assembly
7. Outdoor / indoor



Carried Standard	
Design Standard	API609
Face to Face Standard	ASME B-16. 10
To Flange Standard	ISO 5211
Test Standard	FM112 / UL 1091

Item size	A	B	C	D	H	K	J	P	M	N	d	L	
2"	110	85	32	100	111	153	218	152	90	70	9	10	42
2-1/2"	125	95	32	112	111	153	218	152	90	70	9	10	44.2
3"	140	100	32	120	111	153	218	152	90	70	9	11	45.3
4"	160	100	32	161	111	153	218	152	90	70	9	14	52
5"	170	125	32	182	111	153	218	152	90	70	9	14	54.4
6"	190	140	32	216	111	153	218	200	90	70	9	16	55.8
8"	230	175	32	260	126	210	232	300	125	102	12	19	60.5
10"	260	200	45	320	126	210	232	300	125	102	12	24	66.5
12"	300	240	45	375	161	249	350	350	125	102	14	26	76.9

10	Signal Gearbox	DI
09	Stem Bushing	PTFE
08	End Face Seal	EPDM
07	Lower Shaft Sealing Nut	WCB
06	Lower Shaft	SS416
05	Disc	DI + EPDM
04	Upper Shaft	SS416
03	Body	DI
02	Shaft Seal	EPDM
01	Upper Shaft Sealing Nut	WCB
NO.	Name	Material

TOSHIRO

WET ALARM CHECK VALVE

Flange/Groove/Flange*Groove/Groove*Flane

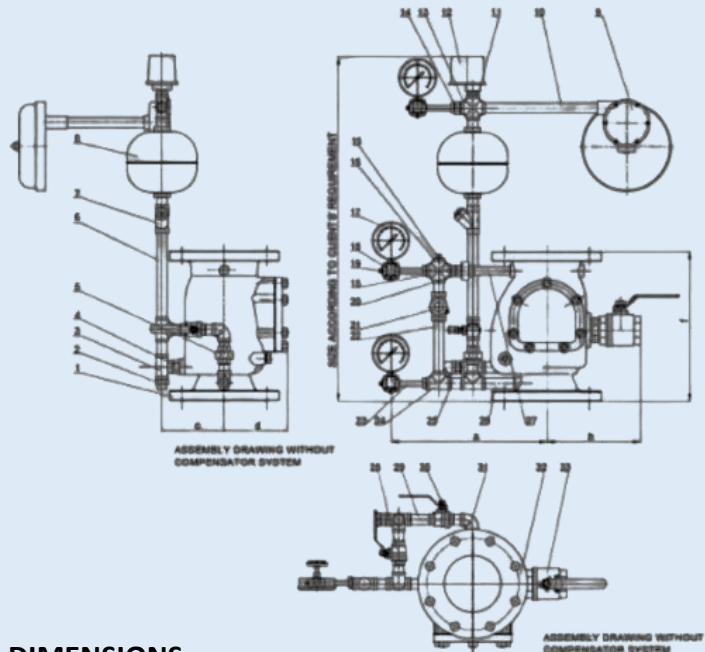
TECHNICAL FEATURES

- Maximun Adjust Pressure: 200PSI-300PSI/PN10/PN16
- Flange Standart: AS,E/ANSI B16.1 Class 125 or ASME/ANSI B16.42 CLASS 150 or BS EN1092-2 Pn16 or GB/T9113.1
- Groove Standard : AWWA C606/ISO 6182-12
- Working Temperature 4 C - 70 C\
- Instalation Height of the Gong According to Clients' requirements
- External Dimension for reference only
- Coating details : Epoxy coated interior and exterior by Electrostatic Spray or Coatingupon request
- Alarm check valves use in wet pipe or sprinkler system,
Fire Protecting SystemM



VALVE MATERIAL LIST

Size	Name	Material	QTY.
1	Alarm Valve		1
2	Orifice,retard	C954/SS304	1
3	Tee	Steel/SS304	2
4	Nipple	Steel/SS304	6
5	Union	Steel/SS304	1
6	Nipple	Steel/SS304	1
7	Y Strainer	C954/SS304	1
8	Retard Chamber	Steel	1
9	Gong Assembly	Component	1
10	Nipple	Steel/SS304	1
11	Reducer Bushing	Steel/SS304	1
12	Pressure Switch	Component	1
13	Cross	Steel/SS304	1
14	Reducer Bushing	Steel/SS304	1
15	Plug	Steel/C954/SS304	1
16	Cross	Steel/SS304	2
17	Pressure Gauge	Component	3
18	3-way Valve Gauge	C954/SS304	3
19	Plug	Steel/C954/SS304	3
20	Orifice,retard	C954/SS304	1
21	Check Valve	C954/SS304	1
22	Nipple	Steel/SS304	1
23	Nipple	Steel/SS304	3
24	Tee	Steel/SS304	2
25	Nipple	Steel/SS304	4
26	Nipple	Steel/SS304	1
27	Nipple	Steel/SS304	1
28	Ball Valve	C954/SS304	1
29	Nipple	Steel/SS304	1
30	Ball Valve	C954/SS304	1
31	Elbow	Steel/SS304	2
32	Nipple	Steel/SS304	1
33	Ball Valve	C954/SS304	1



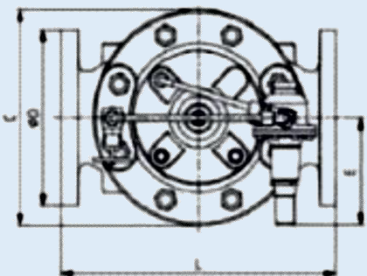
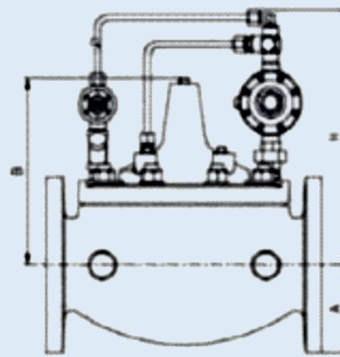
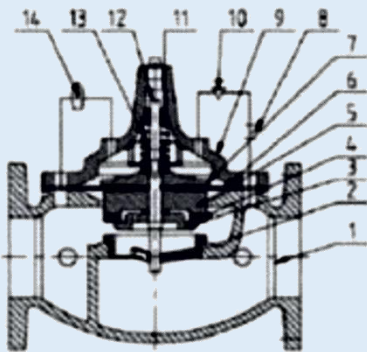
DIMENSIONS

Size	a	b	c	d
2"	340	205	145	110
2.5"	340	205	145	110
3"	340	205	145	110
4"	342	250	160	136
5"	349	274	180	162
6"	349	274	180	162
8"	415	290	205	195
10"	475	340	240	235
12"	495	368	270	270

TOSHIRO

PRESSURE REDUCING VALVE


No.	Name of parts	Material
1	Body	Ductile Iron AS1831 500-7
2	valve seat	Stainless Steel 304
3	Valve plate	Stainless Steel 304
4	seal gasket	EPDM AS1646
5	valve disk	Ductile Iron AS1831 500-7
6	diaphragm	EPDM+Nylon
7	Diaphragm plate	Ductile Iron AS1831 500-7
8	Filter	Stainless Steel 304
9	Valve cover	Ductile Iron AS1831 500-7
10	Needle	Stainless Steel 304
11	Guiding plug	Stainless Steel 304
12	Valve shaft	Stainless Steel 304
13	Spring	Stainless Steel 304
14	Pilot-Relief valve	Stainless Steel 304



Dimensions		Pressure rating	Size (mm)						
DN	inch		psi	ΦD	L	H	A	B	C
50	2	300	150	230	294	82.5	152	155	134
65	2-1/2	300	180	290	298	92.5	170	190	134
80	3	300	190	310	310	100	197	233	134
100	4	300	230	350	320	110	234	270	134
150	6	300	280	480	352	158	311	378	134
200	8	300	345	600	382	190	377	496	134

TOSHIRO

ISO9001

Approvals : 



TSR - 03S & TSR - 03E

Addressable Fire Alarm Control Panel

■ ADVANTAGES

✓ Two-wire communication :

1. Saving cabling costs, time and labor efforts
2. Easy maintenance
3. Combining signal and power loop-do not need voltage for connecting with conventional detectors

- ✓ 7" color LCD display with easy operation interface
- ✓ Equipped with self-simulation testing and warning functions
- ✓ 256 points per loop : mix addressable points of module and addressable detector
- ✓ USB port : easily upload / download program
- ✓ Multi-function : Networking, Linkage, Graphic system, Central monitoring and controlling system

■ SPECIFICATION

MODEL NO.	TSR - 03S	TSR - 03E
LOOP CAPABLE	256 ADD / LOOP (max. 8 LOOPS)	256ADD / LOOP
POWER INPUT	AC220V 50 60Hz	
POWER CONSUMPTION	100VA / loop, approx. 50VA / extra loop	
COMMUNICATION CABLE	Internal resistance of communication cable < 12 , PE insulation wrapping of 500V communication cable > 2M	
COMMUNICATION LOOP	Communication Loop 256 Points / loop , DC24V 25mA/loop provided for conventional detectors	
DISPLAY	7" color LCD display with easy operation interface	
EVENT LOG	History message (max.9999). instant message (max.1000)	
AUDIO HOM	Built-in electronic buzzer/90dB DC24V 50mA	
NET EXPANSION	1. Networking: FACP (max.99). Repeater/Annunciator (max.64) 2. Intelligent graphics system 3. Broadcasting system	
BATTERY BACKUP	Built-in lead acid battery and charger DC24V 4. 5AH	
POWER OUTPUT	Alarm bells, indicators lamps, horns, gates, DC24V 10A MAX	
PRINTING	Built in thermal printer in English(optional)	None
RELAY OUTPUT	Alarm, trouble, reset Both NO, NC	Alarm, trouble Both NO, NC
TEMPERATURE / RH	0 C 50 C, less 95% RH, non-condensing	
DIMENSIONS	450x660mm (WxHxD)/4 LOOP 450x860mm (WxHxD)/8 LOOP	450x450x170mm (WxHxD)
THICKNESS / PAINTING	1.2mm powder coated	

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ISO9001

Approvals : CE



Addressable Fire Alarm Annunciator

■ ADVANTAGES

- ✓ 7 inch color LCD display with Chinese/ English, easy operating, increasing efficiency to deal with the fire alarm.
- ✓ Simultaneously display the message of alarm and error as the host FACP
- ✓ Equipped indicating light: FIRE ` POWER ` TROUBLE
- ✓ FR-485 communication, effective distance > 1000m
- ✓ Able to operate the function of “RESET”, “BUSSER OFF”, “BELL/ HORN OFF” to the host FACP directly
- ✓ Built-in communication device with host FACP

■ SPECIFICATION

MODEL NO.	TSR - 07
POWER SUPPLY	DC24V
POWER CONSUMPTION	Max: 500mA/ DC24V
COMMUNICATION	RS-485 provides communication to the panel network
COMMUNICATION CABLE	Internal resistance of communication cable < 12 Ω, PE insulation wrapping of 500V communication cable > 2M
FUNCTION	Simultaneously display message and operation as the host FACP
AUDIO HORN	Built-in electronic buzzer/90dB DC24V 50mA
DISPLAY	7 inch color LCD display with Chinese/English
TEMPERATURE / RH	0 C ~ 50 C ` less 95% RH/ non-condensing
DIMENSION	360x300x120mm (WxHxD)
MATERIAL	o 1.2mm polished plate

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ISO9001

Approvals : 



TSR - P1

Fire Alarm Control Panel

■ ADVANTAGES

- ✓ Zone range is from 5 to 100 zones
- ✓ 2 stages accumulation function to prevent from false alarms
- ✓ With no voltage output contacts and voltage contacts
- ✓ The unit also can combine with our broadcast host and emergency telephone into 3-in-1 system for multipurpose

■ ADVANTAGES

MODEL NO.	Wall Mounting Type					
CIRCUIT NO.	5L - 10L	15L	20L	25L - 30L	35L - 40L	45L - 50L
H (mm)	400	495	580	520	580	700
W (mm)	300	300	300	480	480	480
D (mm)	120	120	120	180	180	180

■ SPECIFICATION

MODEL NO.	TSR - P1	CURRENT VOLTAGE	24V DC operation voltage, below 5V 32mA
POWER SUPPLY	220V AC 50/60 Hz	CHARGING CURRENT	26V DC, under 450mA, Trickle Charge
STAND-BY BATTERY	24V DC	DETECTORS	No limit of R.O.R. Heat or Fixed Temp. Heat Detector can be installed: Each circuit can connect to a maximum of 20 smoke detectors (standby current for detectors: 24V DC 25µA below)
EOL RESISTOR	10K ^Ω		
EXTERNAL CIRCUIT RESISTANCE	To-and-fro below 50 ^Ω	NO. OF INDICATORS	12 times of panel circuits (LED indicator)
NO. OF BELLS	1.2 times of panel circuits	CASE MATERIAL	12 mm - 2.0mm Steel plate with powder coating
MAIN AUDIO	Single-tone buzzer, above 85dB	REPORT CONTACT	No voltage N.O. contact Capacity 250V AC 7A x 2 sets

■ SPECIFICATION

CM-P1	FACP with battery	
OPTIONAL MODEL NO.		SPARE MODEL NO.
-T	Optional Telephone 1 set	YFP-T4 (5 ZONES as 1 unit)
-A	Optional no voltage contacts (5 ZONES as 1 unit)	YFP-T3 (5 ZONES as 1 unit)
-B	Optional voltage contacts (5 ZONES as 1 unit)	YFP T8 (A): (5 ZONES as 1 unit)
-C	Optional annunciator output (It need to be ordered when it's connected to Annunciator Panel : 5 ZONES as 1 unit)	YFP T8 (B): (10 ZONES as 1 unit)
		YFP T3 (5 ZONES as 1 unit)
-D	Optimal ZONE BELL (5 ZONES as 1 unit)	YFP D1 (5 ZONES as 1 unit)

TOSHIRO SMOKE DETECTOR

ISO9001

Approvals : 

TSR-SD-04

TSR-SD-01/02



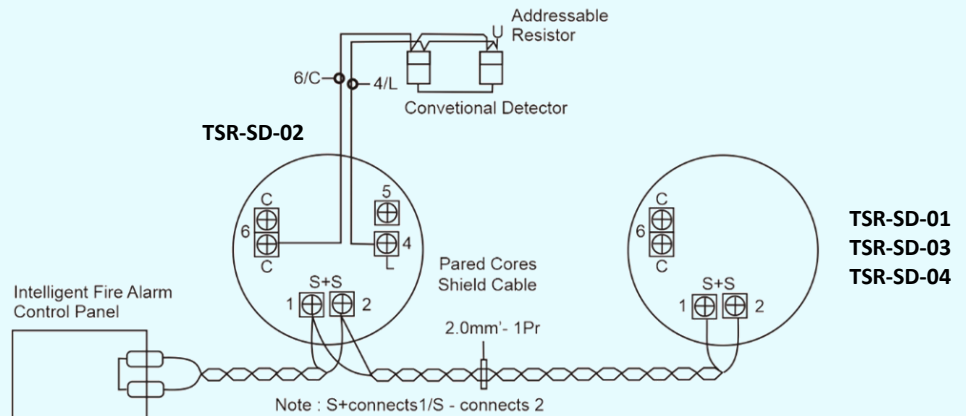
TSR-SD-03

Addressable Detector

ADVANTAGES

- ✓ Two-wire communications
- ✓ Stable communications, noise/ interference resistant
- ✓ Self-test function
- ✓ Three-color LED indicator : monitoring, alarm, broken circuit
- ✓ FR-RD-02 is able to connect with conventional detectors

STRUCTURE



SPECIFICATION

MODEL NO.	TSR-SD-01	TSR-SD-02	TSR-SD-03	TSR-SD-04
DESCRIPTION	Addressable photoelectric smoke detector	Addressable photoelectric smoke detector	Addressable rate-of-rise heat detectors	Addressable fixed-temperature heat detector
ALARMING TEMP.				70°C
POWER INPUT	DC16V~30V			
POWER CONSUMPTION	Static 480µA/DC24V Alarm 7.6mA/DC24V			
STATUS INDICATION	Monitoring: Green LED blinking Alarm: Red LED blinking Broken circuit: Orange LED blinking			
CONNECTION APABILITY		Detection loop max. output 0.5mA/DC24V		
TEMPERATURE	0°C ~50°C			-10°C ~50°C
DIMENSION	W:150xW:55mm	W:150xW:55mm	W:150xW:50mm	W:150xW:50mm
MATERIAL	Fire-proof plastics			

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ISO9001

Approvals : 

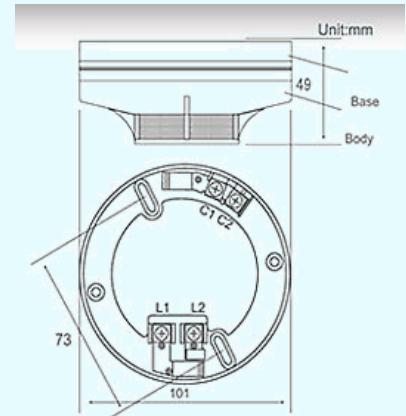


TSR - WT32L

Photoelectric Type Smoke Detector with Duo - LEDs

□ ADVANTAGES

- ✓ With the photoelectric sensing principle, this kind of detector is activated more quickly, accurately and reliably, and there are no false alarm due to chemicals, exhaust gas, wind and exterior light.
- ✓ Detector has passed EMC test, which greatly eliminates false alarms caused by interference from nearby sources
- ✓ Duo-LEDs display separately; Stand-by status: Green, Alarm Status : RED



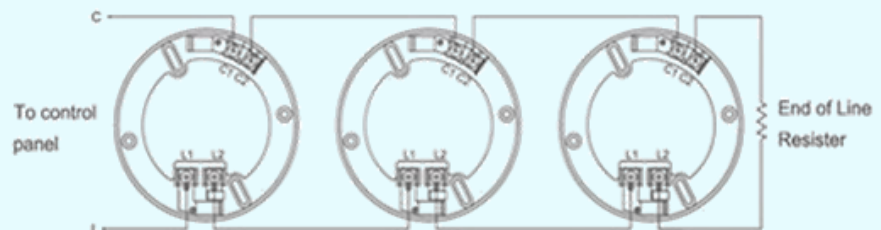
□ SPECIFICATION

MODEL NO.	TSR-WT32L	SENSITIVITY SETTING	Comply to EN54, CNS
TYPE	2-wire	AMBIENT TEMP.	-10C ~ +55 C °
VOLTAGE RANGE	12V ~ 30V DC	AMBIENT HUMIDITY	0 ~ 95%
ALARM CURRENT	24V DC 30mA	MATERIAL	Fire-Proof plastics
		DIMENSIONS	101 (Dia.) x 49 (H)mm
STANDBY CURRENT	24V DC / 25 μ A Below	WEIGHT	138g
POLARIZATION	Non-polarized	COLOR	White
ADVANTAGE	Applies to model nos FR - WS32L FR - WK200L and FR - WT32L		

□ EFFECTIVE ALERT AREA

HEIGHT/ CONSTRUCTION	UNDER 4 M	4 M ~ 8M
AREA COVER	150 M	75 M

□ 2-WIRE TYPE



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ISO9001

Approvals :  

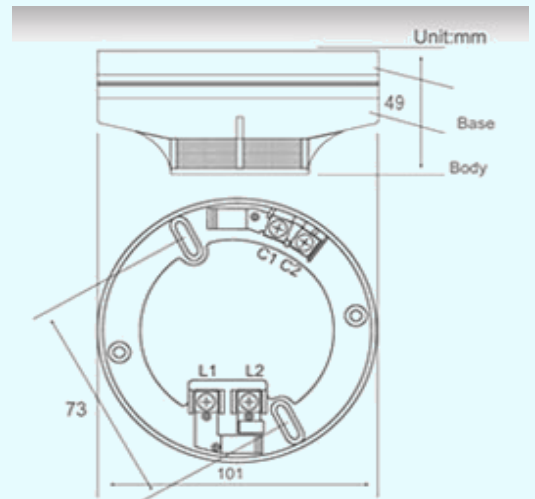


TSR - WT33LR

Photoelectric Type Smoke

□ ADVANTAGES

- ✓ Dual LEDs for 360-degree visibility. Bi-color LEDs stand-by status: Green; Alarm status: Red
- ✓ With the photoelectric sensing principle, this kind of detector is activated more quickly, accurately and reliably, and there are no false alarms due to chemicals, exhaust gas, wind and exterior light
- ✓ Detector has passed EMC test, which greatly eliminates false alarms caused by interference from nearby sources
- ✓ Pretty and jointless outward



□ SPECIFICATION

MODEL NO.	TRS-WT33LR	TRS-WT33LR	SENSITIVITY SETTING	Comply to EN54, CNS	
TYPE	3-wire	4-wire	AMBIENT TEMP.	-10 C ~ +55 C	
VOLTAGE RANGE	12V ~ 30V DC Fire Alarm System	12V Security	AMBIENT HUMIDITY	0 ~ 95%	
			MATERIAL	Fire-Proof plastics	
CONTACT RATING	N/A	1 A @30V DC	DIMENSIONS	101 (Dia.) x 49 (H)mm	
ALARM CURRENT	24V DC 30mA		WEIGHT	138g	
STANDBY CURRENT	24V DC / 25 μA Below		REMARK	Apply to base model no. CM-BSN3 & BSN3T	
POLARIZATION	Non-polarized	Polarized			Non-polarized
WEIGHT	131g	137g			

□ EFFECTIVE ALERT AREA

HEIGHT/ CONSTRUCTION	UNDER 4 M	4 M ~ 8M
AREA COVER	150 M ²	75 M ²

TOSHIRO

ISO9001

Approvals : 



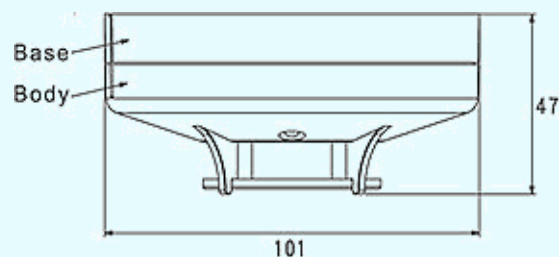
TSR - WK200L

Fixed Temperature Heat Detector

❑ ADVANTAGES

TSR - WK200L

- ✓ Stabilized performance, long-term durability and least-malfunction are ensured by employing a UL approved sensor
- ✓ The sensitive part is enclosed to prevent from being moistened and contaminated
- ✓ Self-restoring function ensures the elements repeat-edly use.



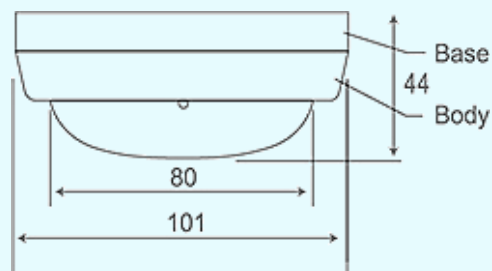
TSR - WS25L

Rate of Rise Heat Detector

❑ ADVANTAGES

TSR - WS25L

- ✓ Mechanical operating principles ensure the long-term durability and the least malfunction
- ✓ Self-restoring function ensures the elements repeatedly use
- ✓ The exhaust valve of R. O. R. Heat Detector part uses optical fiber glass capillary tube that's heat-resistant and moisture-proof to avoid false alarms



❑ SPECIFICATION

MODEL NO.	TSR - WK200L	AMBIENT TEMP.	-10 C ^o ~ +55 C ^o
TYPE	2-wire	AMBIENT HUMIDITY	0 ~ 95%
VOLTAGE RANGE	12V ~ 30V DC	VOLTAGE RANGE	Fire-Proof plastics
ALARM CURRENT	24V DC 30mA	ALARM CURRENT	101 (Dia.) x 47(H)mm
POLARIZATION	Non-polarized	POLARIZATION	100g
ALARM TEMP.	Comply to EN54, CNS	ALARM TEMP.	White

❑ EFFECTIVE ALERT AREA

HEIGHT/CONSTRUCTION	Under 4M	4M ~ 8M
Fire-Proof Building	90 M'	45 M'
Ordinary Building	50 M'	30 M'

❑ EFFECTIVE ALERT AREA

HEIGHT/CONSTRUCTION	Under 4M	4M ~ 8M
Fire-Proof Building	70 M'	35 M'
Ordinary Building	40 M'	25 M'

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ISO9001

Approvals : 

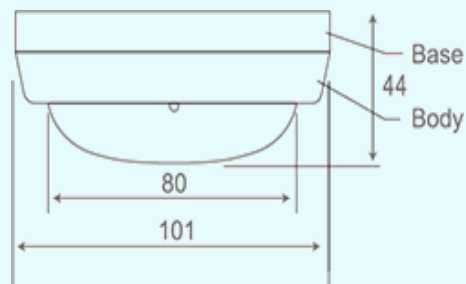
TSR – WS14LR

Rate of Rise Heat Detector



□ ADVANTAGES

- ✓ Dual LEDs for 360-degree visibility
- ✓ Mechanical operating principles ensure the long-term durability and the least malfunction
- ✓ Self-restoring function ensures the elements repeatedly use
- ✓ Electrical contacts with Silver-palladium alloy to conduct electricity excellently
- ✓ The exhaust valve of R.O.R Heat Detector part uses optical fiber glass capillary tube that's heat-resistant and moisture-proof to avoid false alarms




□ SPECIFICATION

MODEL NO.	TSR – WS14LR		SENSITIVITY SETTING	Comply to EN54, CNS
TYPE	2-wire	3-wire	AMBIENT TEMP.	-10 C ~ +55 C
VOLTAGE RANGE	12V ~ 30V DC		AMBIENT HUMIDITY	0 ~ 95%
ALARM CURRENT	24V DC 30mA		MATERIAL	Fire-Proof plastics
POLARIZATION	Non-polarized	Polarized	DIMENSIONS	101 (Dia.) x 49 (H)mm
WEIGHT	131g		COLOR	White
REMARK	131g			

□ EFFECTIVE ALERT AREA

HEIGHT/ CONSTRUCTION	UNDER 4 M	4 M ~ 8M
Fire-Proof Building	70 M	35 M
Ordinary Building	40 M	25 M

TOSHIRO

ISO9001
Approvals 

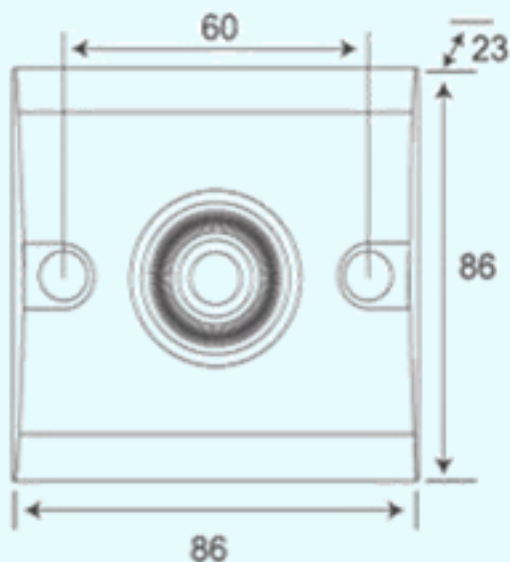


TSR – RL1

Remote Indicating Lamp

❑ ADVANTAGES TSR-RL1

- ✓ This unit is designed to ensure the alarm signal can be actually transmitted to all locations
- ✓ To prevent any missing signal specially for the close room



❑ SPECIFICATION

MODEL NO.	TSR – RL1	FR-RL1
VOLTAGE RANGE	Power Source from Detector Base	
ALARM CURRENT	60 mA	
AMBIENT TEMP.	12 mA	
MATERIAL	-10 C ~ +55 C	
WEIGHT	28g	
DIMENSIONS	86(W)x86(D)x60(H)mm	
COLOR	White	

TOSHIRO

ISO9001

Approvals :



Fire Alarm Bell 6 Inch

ADVANTAGES FR-FB6 & FR-FB612

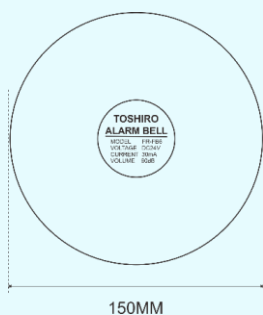
- ✓ The way of motor-driven is taken at the low consumption of current to reduce the load for power output from receiver terminal
- ✓ This design of exceptional structure is sturdy and durable. The bell oven can ring to last 40 hours without decline of the performance and structure

SPECIFICATION

MODEL NO.	TSR-FB6	TSR-FB6 12
VOLTAGE RANGE	24V DC	12VDC
ALARM CURRENT	13 mA	60 mA
MOVEMENT	Motor	
MATERIAL	3.0 Alloy Alu	
DIMENSIONS	6" (150mm)	
WEIGHT	418g	
SOUND OUTOUT	90 dB / M and Above	
COLOR	Red	

ORDER INFORMATION

FR-FB6	Φ6" : 24V DC
FR-FB612	Φ6" : 12V DC



Fire Indicating Lamp

ADVANTAGES FR-FL1

- ✓ Plug-in type of termination for ease of Installation
- ✓ Highly visible
- ✓ SMD LED give high brightness while it has lower power consumption

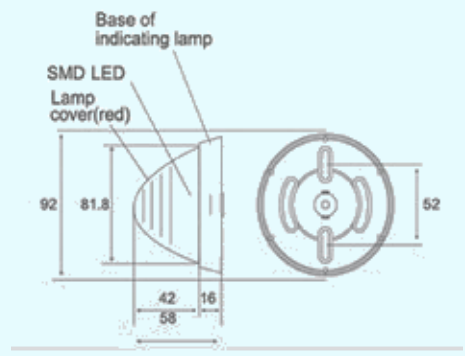
SPECIFICATION

MODEL NO.	TSR-FL1
POWER SOURCE	24V DC
ALARM CURRENT	12 mA
AMBIENT TEMP.	◦ - 10 ℃ ~ +55 ℃
MATERIAL	Fire-Proof plastics
WEIGHT	52kg
DIMENSIONS	Φ 92 x 58(H)mm
COLOR	Red

LAMP ACCESSORIES



FL10:
Only for FR-FL1 Use





TSR-FP3

Fire Manual Call Point

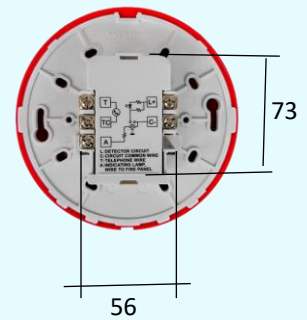
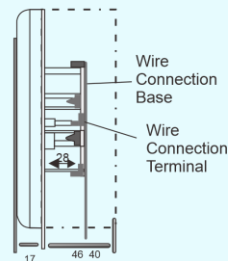
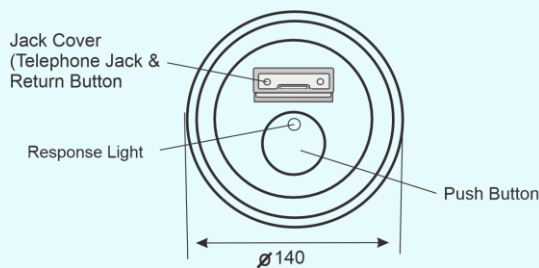


TSR-FPB

Fire Manual Box

❑ ADVANTAGES of FR-FP3

- ✓ Reusable: No glass to break. No consumables. Durable plastic push cover is reusable.
- ✓ Easy auto-reset: By pushing reset button to return to normal working condition.
- ✓ Phone jack function: For stable communication in any urgent time.



Unit : mm

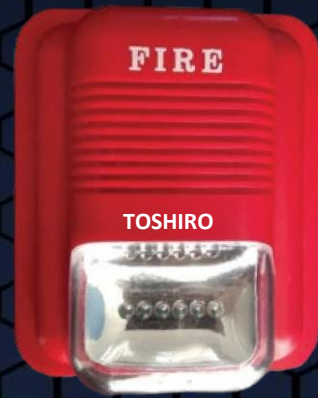
❑ SPECIFICATION

MODEL NO.	<u>CM-FP3</u>
VOLTAGE RANGE	24V DC
ALARM CURRENT	30 mA
OPERATING CONTACT	24V DC 100mA
SUB-FUNCTION	Phone jack; Confirmation LED; Reset button

TOSHIRO

TSR - FAS1

Fire Alarm Strobe



❑ SPECIFICATION:

MODEL NO.	TSR - TAS1
OPERATION VOLLEGE	DC 24V
COLOR	RED
FLASH RATE	65 Flashes/min
SOUND OUTPUT	≥ 100 dB
WORKING CURRENT	80 ~ 180 mA
FLASH INTENSIT Y	≥ 1,2 ws
LIFE OF FLASH LIGHT	≥ 40000
TEMP RANGE	- 10 ~ +50C
DIMENSIONS	123 x 75 x 35 mm
HUMIDITY RANGE	≤ 95% RH

❑ INSTALLATION:

1. At first, get into hole well in the install place(wall), the hole distance is (10)65MM/(11)85MM, installs the plastics and swell Stopper, (if thw wall is the wooden material, can be by attacking the screw and fastening by oneself directly)
2. Connect DC12/24V power and network link, and set up a kind of alarm sound well according to the need.
3. Specialize in screw by oneself with two, fix the alarm to install in the place, tighten the screw alarm

TOSHIRO

TSR - 220A

TSR - 12D

Household Gas Leak Detector



❑ ADVANTAGES

- ✓ Excellent Stability
- ✓ Super High Sensitivity
- ✓ Detector With Base Installation Easily
- ✓ Detecting Various Gases: Flammable Gases (LPG, LNG)

OPERATION

MODEL NO.	TSR-220A / TSR-12D
POWER ON (Warm Up)	Alarm LED is GREEN
STANDBY	Alarm LED is OFF
SENSING INDICATION	Alarm LED in ON
SENSING ALARM SOUND	Bi-Sound without intermittance
SIGNAL OUTPUT	Relay signal output optional
INSTALL LOCATION	1. Neat the ceiling within 1 feet for LNG (methane) city gas 2. Near the floor within 1 feet for LPG (propane, butane)

Remark : For avoid broking the sensor, if necessary testing, should be used by low concentration gas. Please do not test within warm-up time.

SPECIFICATION

SENSOR	New Nano Tech	ALARMING RANGE	± 6% LEL
INITIAL	Within 3 minutes	HUMIDITY RANGE	< 95% RH
STABILIZATION			
RESPONSE TIME	Within 20 Seconds	OPERATING	220VAC / 12VDC
ALARM	Safe Home	VOLTAGE	
POWER	Standby Max. 2W Standby Max. 120mA	OPERATING TEMP.	-10 °c ~ +50 °c
CONSUMPTION	Alarming Max. 3W Alarming Max. 150mA		
DIMENSION	115MMx72mmx43mm (HxWxD)	POLARIZATION	Self Extinguishing ABS 768, UL 84v0

ALARMING TREATMENT

1. Don't touch any electrical switch
2. Open windows and doors carefully, should be taken to ventilation
3. Check the cause of leaks (gas appliances, gas hoses or outlets and what other suspicious)
4. Unless Buzzer stops, call Gas Company



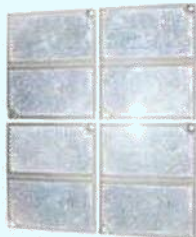
TSR-9105R

Reflective Beam SMOKE Detector

□ ADVANTAGE

- ✓ Relective Beam Detector is a relecrive infrared beam smoke detector, which must be used together with reflectors. The number of reflectors(s) to be used (1 of 4) depends on the distance of coverage from the detector
- ✓ With built-in microprocessor, the detector has capabilities of analysis and judgment. The detector can automatically carry out system adjustment & compensation due to variations in ambience data, through fixed algorithm with indications by LED and signal through the output terminals.
- ✓ The detector sensitivity can be field adjustable, to increase the range of application.
- ✓ The detectors can be used with both Conventional Fire Alarm Panels, and our GST range of Addressable Fire Alarm Panels

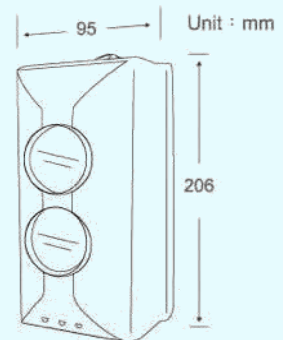
■ STANDARD ACCESSORIES



4 pcs. Reflector



1 pc. Mounting Bracket
1 pc. IR Light Filter
(for simulation testing at site)



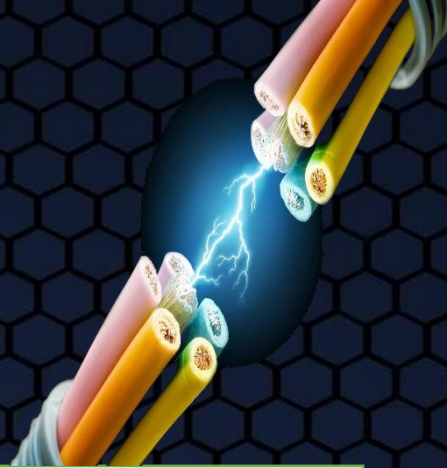
□ SPECIFICATION

MODEL NO.	TSR - 9105R	WIRING	Non Polarized Two-Core 24VDC
OPERATION VOLTAGE	24VDC (Range 15VDC to 28VDC)		Non Polarized Two Core Detection Loop
OPERATING CURRENT	Standby Current : < 8ma Alarm Current : ≤ 12ma	OPERATING ENVIRONMENT	Temperature Range : -10 °c ~ +50 °c Relative Humidity ≤ 95%
DETECTION RANGE	Distance from 8m 10 100m	DIMENSIONS	206mm (Ht) x 95mm (W) x 95mm (D)
MONITORING AREA	Maximum Area : 14 x 100 = 1400m Maximum Whidt : 14m ²	WEIGHT	450 g
		MATERIAL	ABS Plastic
		COLOR	GREEY & BLACK

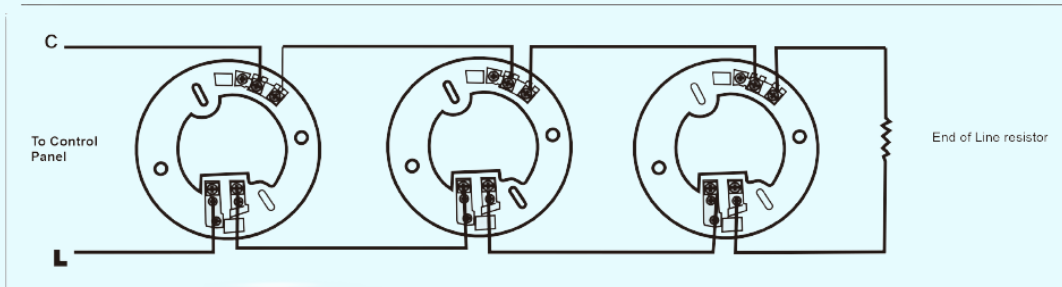
TOSHIRO

4 Inch Mounting Base

WIRING & CONNECTION

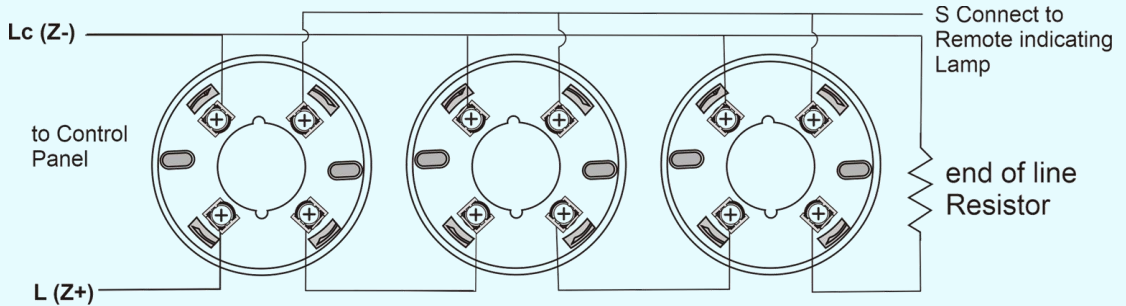


TSR-BSN2 2 WIRE TYPE (FORNG SIMPLE ANGEL SERIES)



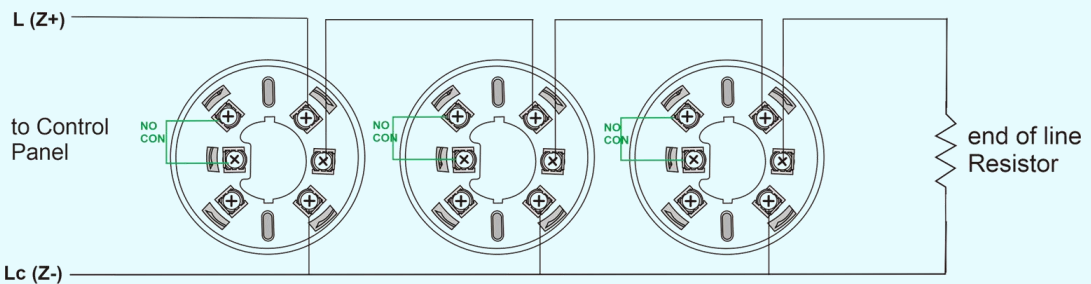
TSR-BSN2

3-WIRE TYPE

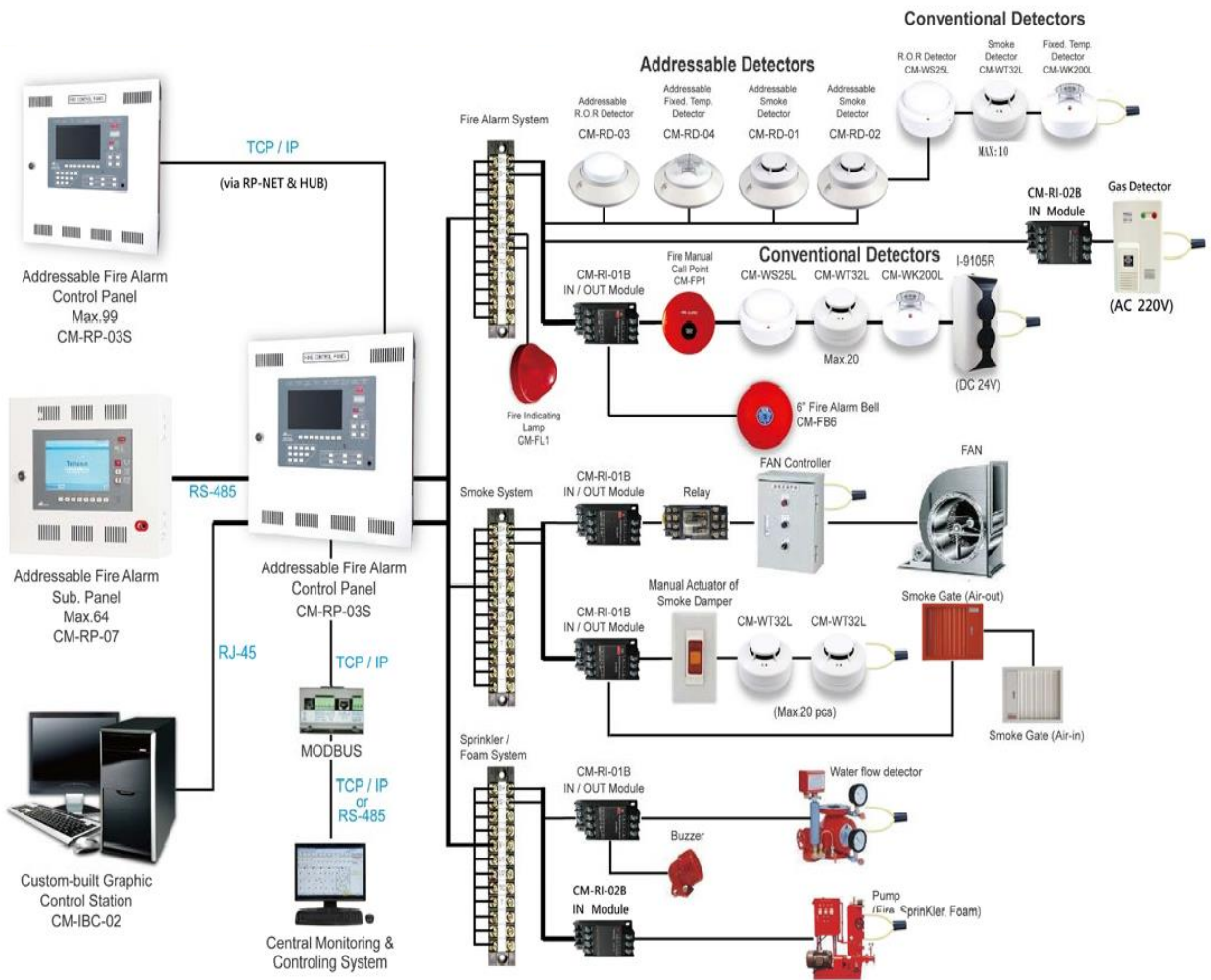


TSR-BSN3T 4-WIRE TYPE (ONLY FOR TSR-WT33LT)

4 WIRE TYPE Relay Output (see GREEN Line) Contact Rating 1A@30V DC



ADDRESSABLE FIRE ALARM SYSTEM STRUCTURE



TOSHIRO



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